

MASSACHUSETTS HEALTH STATUS INDICATORS BY RACE AND ETHNICITY

Massachusetts Department of Public Health
Bureau of Health Statistics, Research and Evaluation
Division of Research and Epidemiology
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Table of Contents

Section 1: Population Data

Massachusetts population by race and Hispanic origin, 1990
Selected detailed ancestry groups, Massachusetts, 1990
Estimated Massachusetts population by race and Hispanic origin, 1995

Section 2: Maternal and Infant Health Indicators

Number and percentage of births by detailed race/ethnicity, 1994
Birth characteristics by detailed race and ethnicity, 1994
Infant mortality rates by race/ethnicity, 1994
Percentage of low birthweight infants by race/ethnicity, 1994
Percentage of teen births by race/ethnicity, 1994
Percentage of women receiving adequate prenatal care by race/ethnicity, 1994
Percentage of publicly funded prenatal care by race/ethnicity, 1994
Percentage of mothers who smoked during pregnancy by race/ethnicity, 1994
Percentage of infants delivered by cesarean section by race/ethnicity, 1994

Section 3: General Mortality Patterns

Age-adjusted mortality rates by race/ethnicity, 1992-1994
Age-specific mortality rate, age 1-14, by race/ethnicity, 1992-1994
Age-specific mortality rate, age 15-24, by race/ethnicity, 1992-1994
Age-specific mortality rate, age 25-44, by race/ethnicity, 1992-1994
Age-specific mortality rate, age 45-64, by race/ethnicity, 1992-1994
Age-specific mortality rate, age 65+, by race/ethnicity, 1992-1994
Number of deaths for selected causes by Hispanic ancestry, 1992-1994

Section 4: Cause-Specific Mortality Indicators

Age-adjusted heart disease mortality rates by race/ethnicity, 1992-1994
Age-adjusted cancer mortality rates by race/ethnicity, 1992-1994
Age-adjusted lung cancer mortality rates by race/ethnicity, 1992-1994
Age-adjusted breast cancer mortality rates by race/ethnicity, 1992-1994
Age-adjusted prostate cancer mortality rates by race/ethnicity, 1992-1994
Age-adjusted stroke mortality rates by race/ethnicity, 1992-1994
Age-adjusted chronic obstructive pulmonary disease mortality rates by race/ethnicity, 1992-1994
Age-adjusted diabetes mortality rates by race/ethnicity, 1992-1994
Age-adjusted AIDS and HIV-related mortality rates by race/ethnicity, 1992-1994
Age-adjusted alcohol and substance abuse mortality rates by race/ethnicity, 1992-1994
Age-adjusted homicide mortality rates by race/ethnicity, 1992-1994
Age-adjusted suicide mortality rates by race/ethnicity, 1992-1994
Age-adjusted motor vehicle related mortality rates by race/ethnicity, 1992-1994

Section 5: Health Status and Risk Behavior Indicators

Percentage of persons reporting fair/poor health status by race/ethnicity, 1994-1995
Percentage of persons reporting overweight by race/ethnicity, 1994-1995
Percentage of persons currently smoking by race/ethnicity, 1994-1995
Percentage of persons reporting high blood pressure by race/ethnicity, 1995
Percentage of persons reporting high cholesterol by race/ethnicity, 1995
Percentage of persons reporting diabetes by race/ethnicity, 1994-1995
Percentage of persons reporting chronic drinking by race/ethnicity, 1995
Percentage of persons reporting driving after drinking by race/ethnicity, 1995
Percentage of persons reporting binge drinking by race/ethnicity, 1995

Section 6: Health Care Access Indicators

Percentage of persons reporting no health insurance by race/ethnicity, 1994-1995
Percentage of persons reporting unchecked blood pressure by race/ethnicity, 1995
Percentage of persons reporting unchecked cholesterol by race/ethnicity, 1995
Percentage of women age 40+ reporting never having a mammogram by race/ethnicity, 1994-1995
Percentage of women age 18+ reporting never having a Pap Test by race/ethnicity, 1994-1995
Percentage of persons age 40+ reporting never having a digital rectal examination by race/ethnicity, 1995

Technical note: age-adjusted and age-specific rates

Population Data

**Massachusetts Population by Race and Hispanic Origin:
1990 United States Census Data¹**

	Number	Percentage (%)
White non-Hispanic	5,297,982	88.0
Black non-Hispanic	279,156	4.6
Hispanic	287,561	4.8
Asian & Pacific Islander	146,030	2.4
American Indian	12,959	0.2
TOTAL	6,016,425²	100.0

¹ Data Source: US Bureau of Census, 1990 Census of Population, Modified Age, Race, Sex (MARS) File for Massachusetts.

² Total is not sum of above categories. Asian and American Indians of Hispanic ancestry counted in both categories.

Selected Detailed Ancestry Groups, Massachusetts, 1990 Census¹

Ancestry Group	Number
Irish	1,570,742
English	920,850
Italian	843,524
French	634,833
German	497,462
Polish	359,677
French Canadian	310,636
Portuguese	289,424
Scottish	199,489
Swedish	143,841
Russian	133,080
Puerto Rican	103,792
Greek	81,769
Lithuanian	68,447
Chinese	47,245
Lebanese	29,700
Cape Verdean	29,326
Dominican	29,065
Armenian	28,714
Asian Indian	13,603
Vietnamese	13,101
Laotian	12,878
Cambodian	11,821
Mexican	11,421
Japanese	10,662
Cuban	6,468

¹ Data Source: US Bureau of the Census, 1990 Census of Population, General Population Characteristics, 1990 Census, CP-1-23, Table 23.

**Massachusetts Population by Race and Hispanic Origin:
1995 Estimates¹**

	Number	Percentage (%)
White non-Hispanic	5,309,417	85.6
Black non-Hispanic	312,168	5.0
Hispanic	374,108	6.0
Asian & Other	208,018	3.4
TOTAL	6,203,711	100.0

¹ Data Source: Massachusetts Institute of Social and Economic Research, University of Massachusetts, Amherst, unpublished estimates September 1996.

Maternal and Infant Health Indicators

**Number and Percentage of Births by Detailed Race/Ethnicity,
Massachusetts, 1994³**

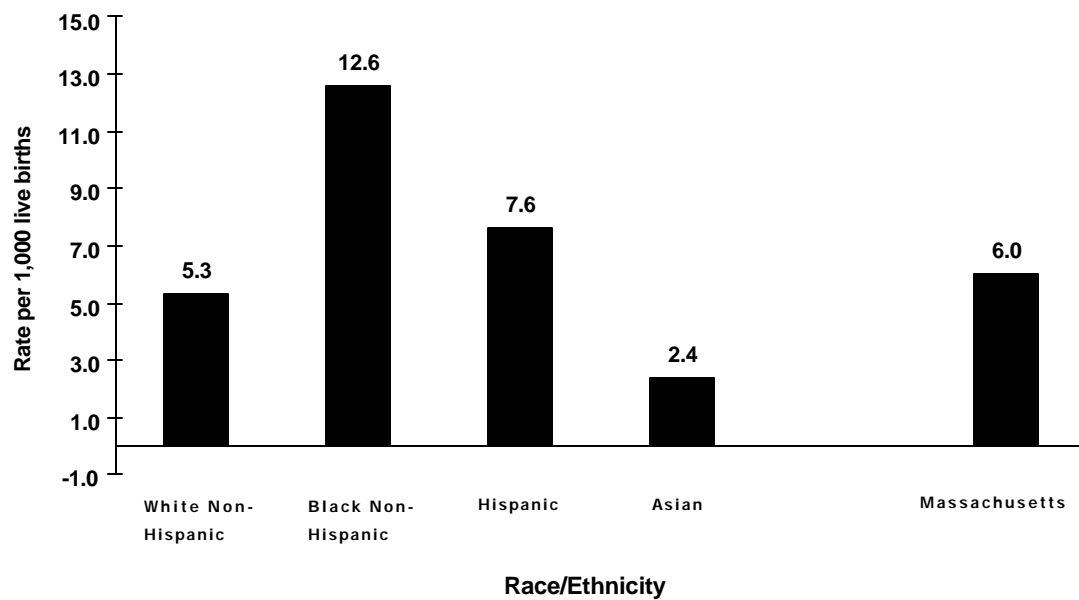
Race and Ethnicity	Number	Percentage (%)
White non-Hispanic	64,576	77.1
Black non-Hispanic	6,258	7.5
Haitian	899	1.1
Other West Indian	581	0.7
American	3,668	4.4
Other Black	1,110	1.3
Hispanic	8,429	10.1
Puerto Rican	4,560	5.4
Dominican	1,387	1.7
Central American	962	1.1
South American	780	0.9
Other Hispanic	740	0.9
Asian	3,382	4.0
Chinese	1,030	1.2
Vietnamese	645	0.8
Cambodian	496	0.6
Other Southeast Asian	157	0.2
Other Asian	1,054	1.3
Other¹	949	1.1
Unknown²	164	0.2
State Total	83,758	100.0

¹ Other: Mothers who designated themselves as "Other" race

² Unknown: Mothers who did not indicate a race/ethnicity

³ Data Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

**Infant Mortality¹ Rates² by
Race/Ethnicity, Massachusetts: 1994³**

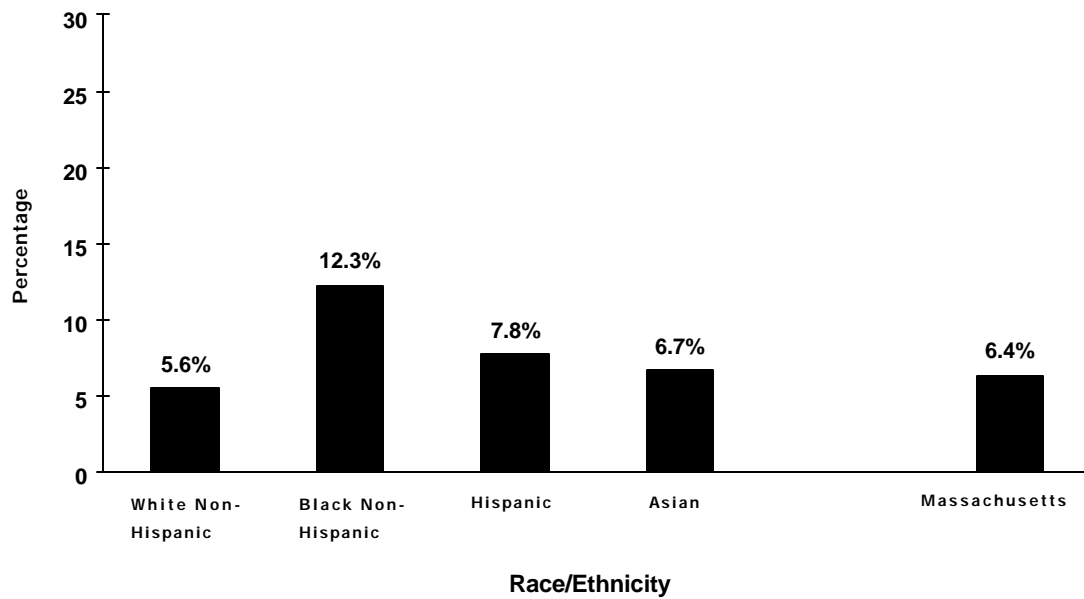


¹ Deaths to children under the age of one

² Rates are per 1,000 live births; births of infants of unknown race are allocated into the race categories according to the distribution of births of known race.

³ Data Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

**Percentage¹ of Low Birthweight² Infants by
Race/Ethnicity, Massachusetts: 1994³**

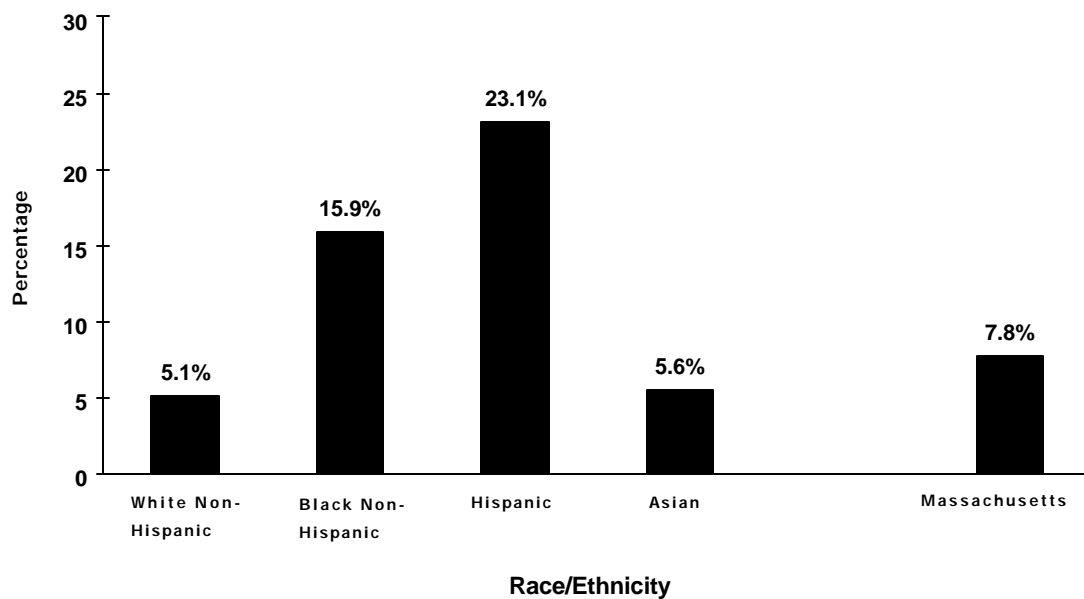


¹ The number of low birthweight infants as a percentage of all births for the specified group

² Low birthweight: < 2,500 grams or 5.5 pounds

³ Data Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

**Percentage¹ of Teen Births² by
Race/Ethnicity, Massachusetts: 1994³**

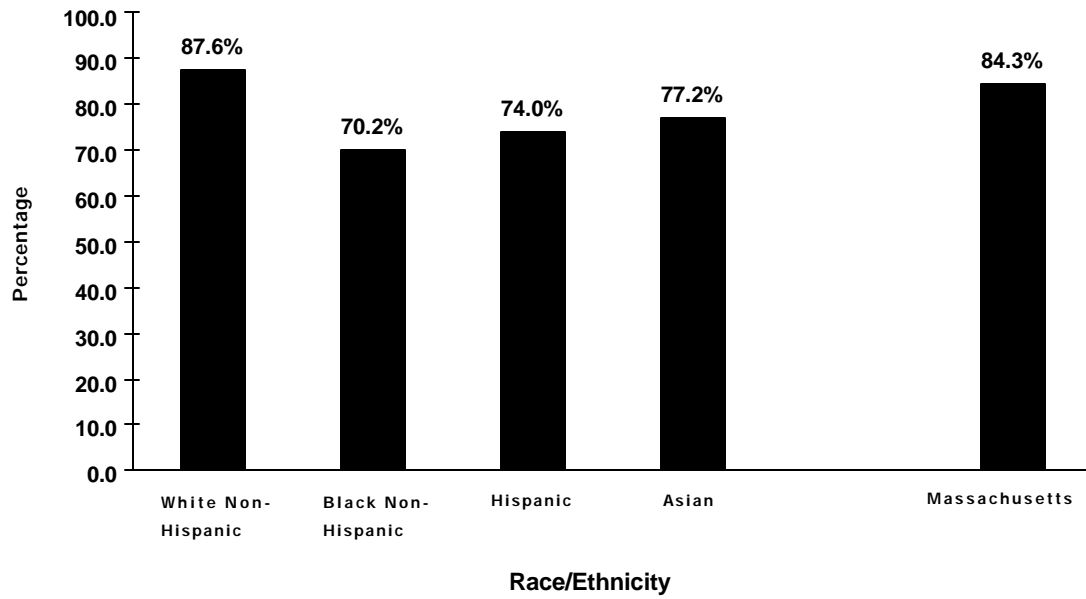


¹ The number of teen births as a percentage of all births for the specified group

² Births to mothers under the age of 20

³ Data Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

**Percentage¹ of Women Receiving Adequate Prenatal Care² by
Race/Ethnicity, Massachusetts: 1994³**

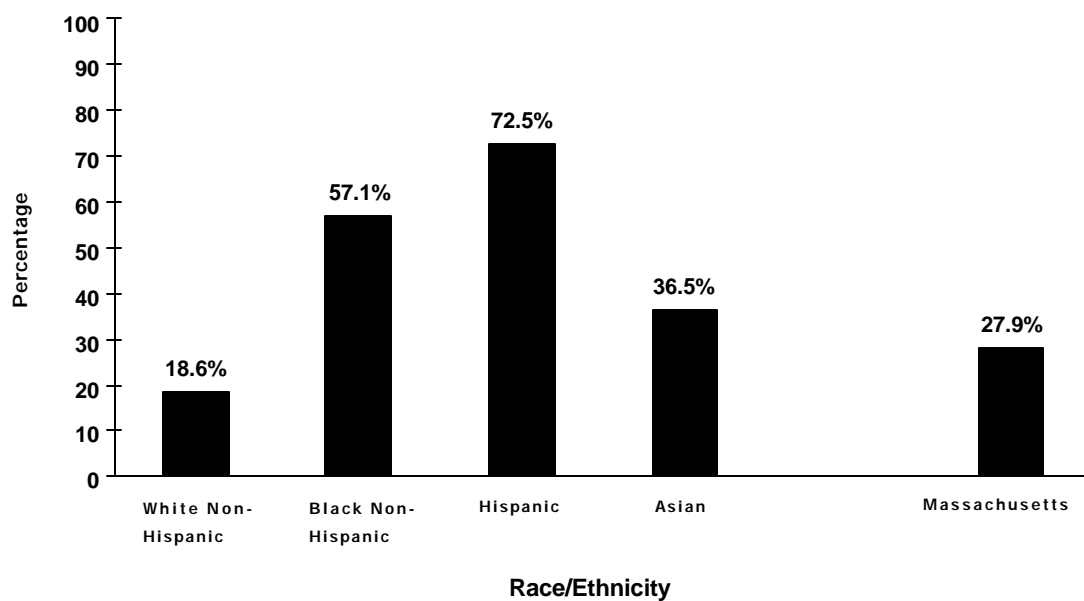


¹ The number of women receiving adequate prenatal care as a percentage of all births with known adequacy scores for the specified group

² Adequate prenatal care is defined as having 9 or more prenatal care visits beginning in the first trimester

³ Data Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

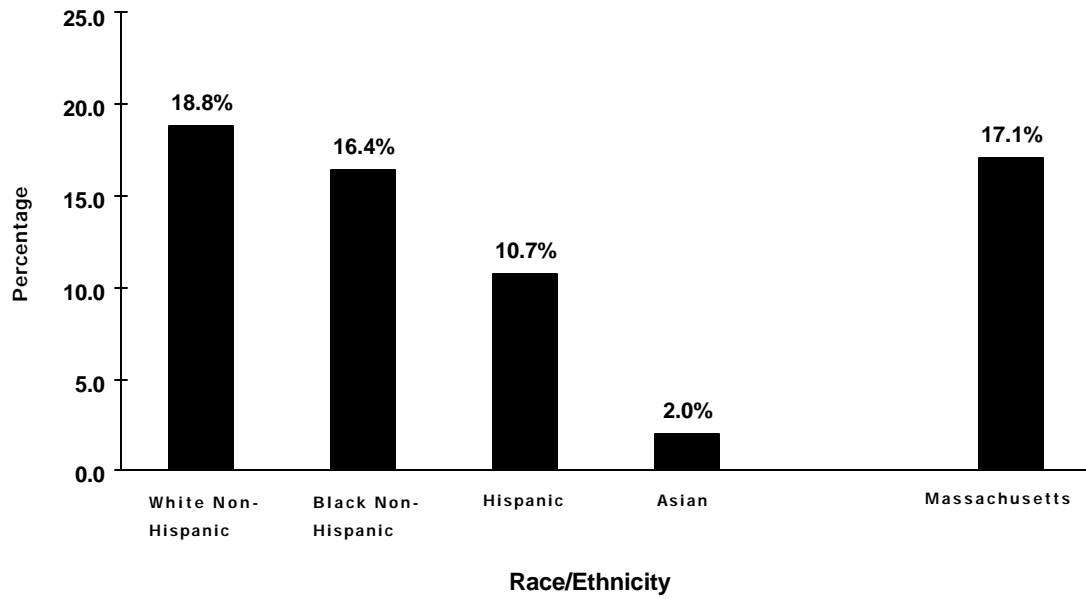
**Percentage of Publicly Funded Prenatal Care by
Race/Ethnicity, Massachusetts: 1994¹**



¹ The number of publicly funded prenatal care visits as a percentage of all births for the specified group

² Data Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

**Percentage of Mothers Who Smoked^{1, 2} During
Pregnancy by Race/Ethnicity, Massachusetts: 1994³**

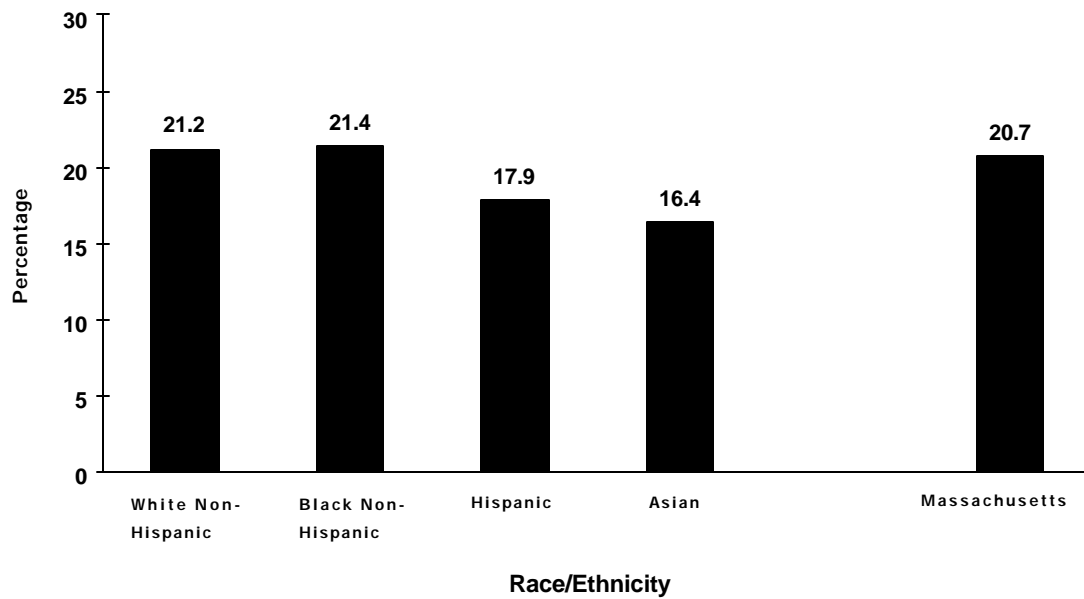


¹ Based on information provided on the birth certificate by the mother. Mothers who have more than one delivery are counted for each birth

² Hospitals reporting smoking rates more than 3 standard deviations below the mean level of hospital reporting (18.2%) are excluded. Using this criterion, the following hospitals are excluded: Martha's Vineyard (6.8%), Newton-Wellesley (4.6%), Massachusetts General (5.4%), Brigham and Women's (2.3%) and North Shore Birth Center (2.6%).

³ Date Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

**Percentage¹ of Infants Delivered by Cesarean Section by
Race/Ethnicity, Massachusetts: 1994²**

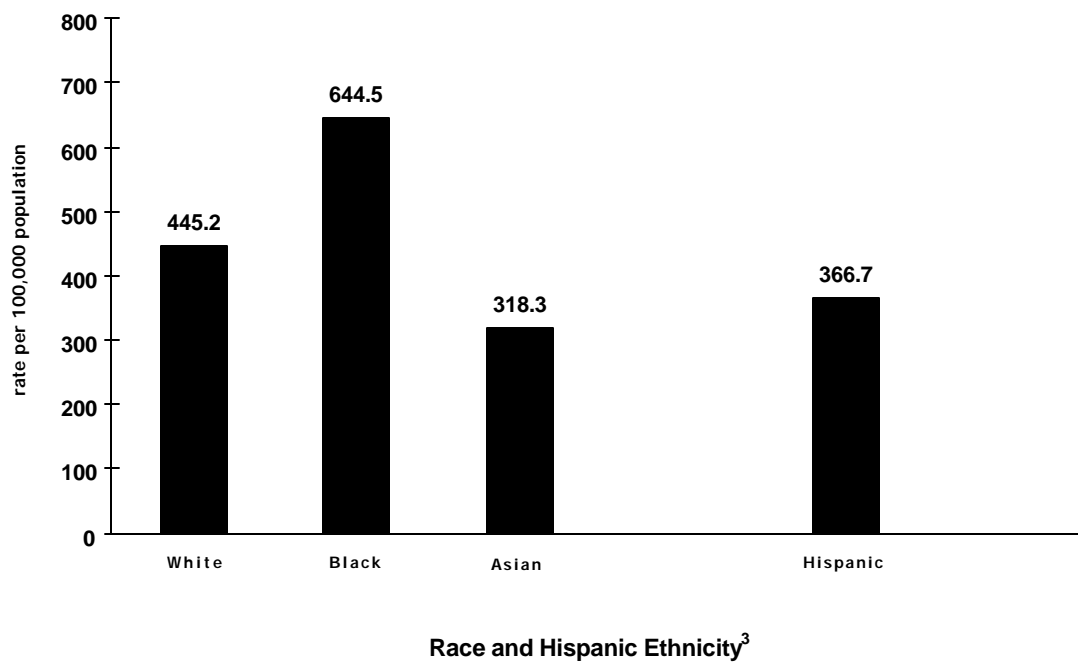


¹ The number of cesarean section deliveries as a percentage of all births for the specified group

² Data Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

General Mortality Patterns

**Overall Age-Adjusted Mortality Rates¹ by
Race/Ethnicity, Massachusetts: 1992-1994²**

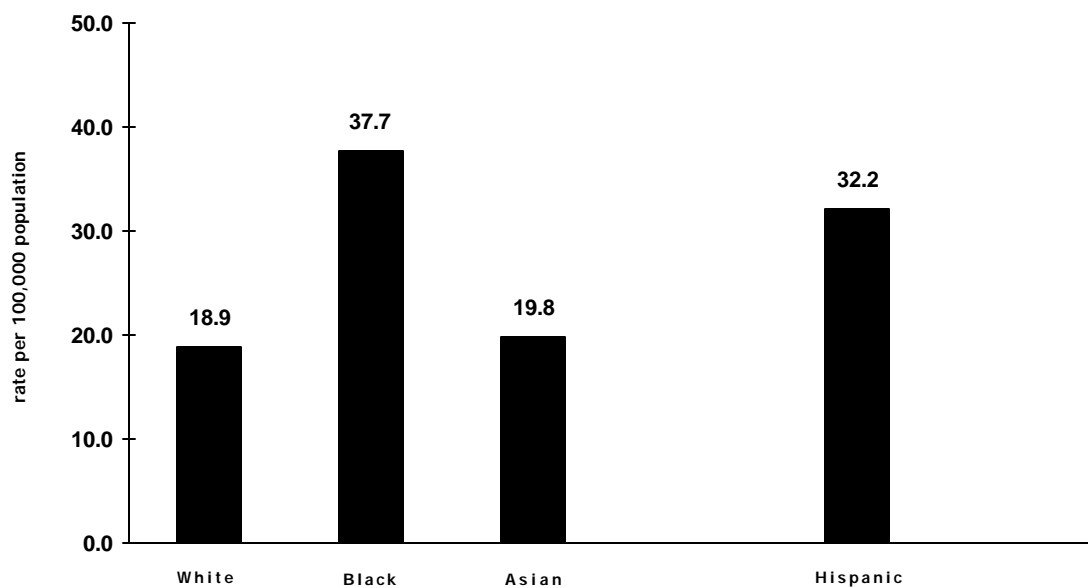


¹ All rates are age-adjusted by the direct method using the 1940 U.S. Census population

² Data Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

³ Persons of Hispanic ethnicity are also included in the race categories, consistent with the U.S. Census population classification

Age: 1-14
Age-Specific Death Rates by
Race/Ethnicity, Massachusetts: 1992-1994¹

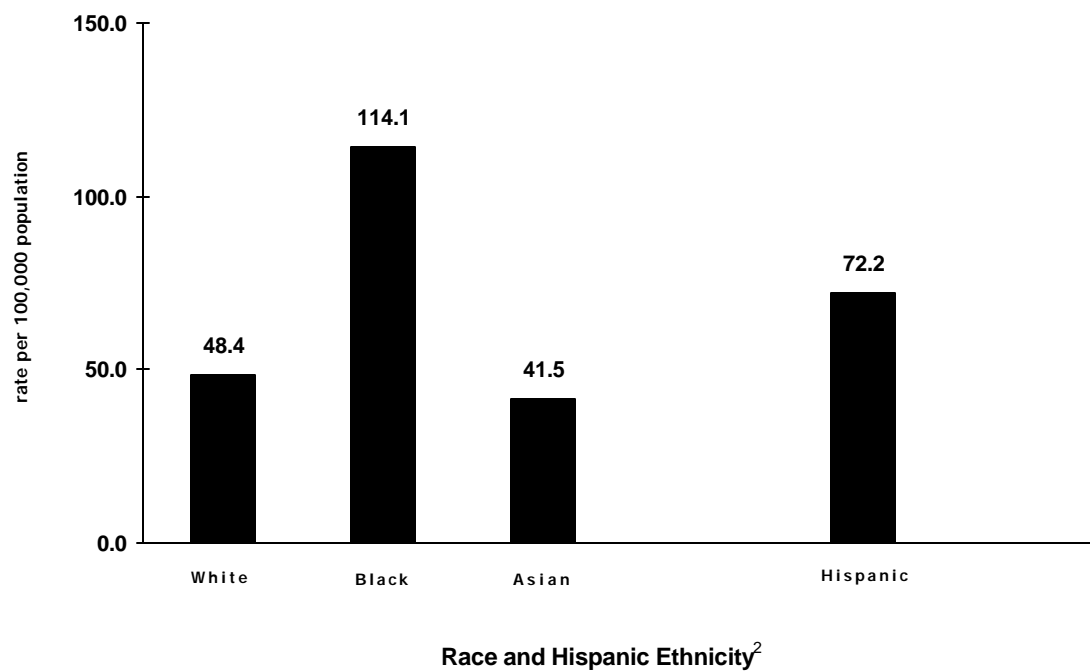


Race and Hispanic Ethnicity²

¹ Data Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

² Persons of Hispanic ethnicity are also included in the race categories, consistent with the U.S. Census population classification

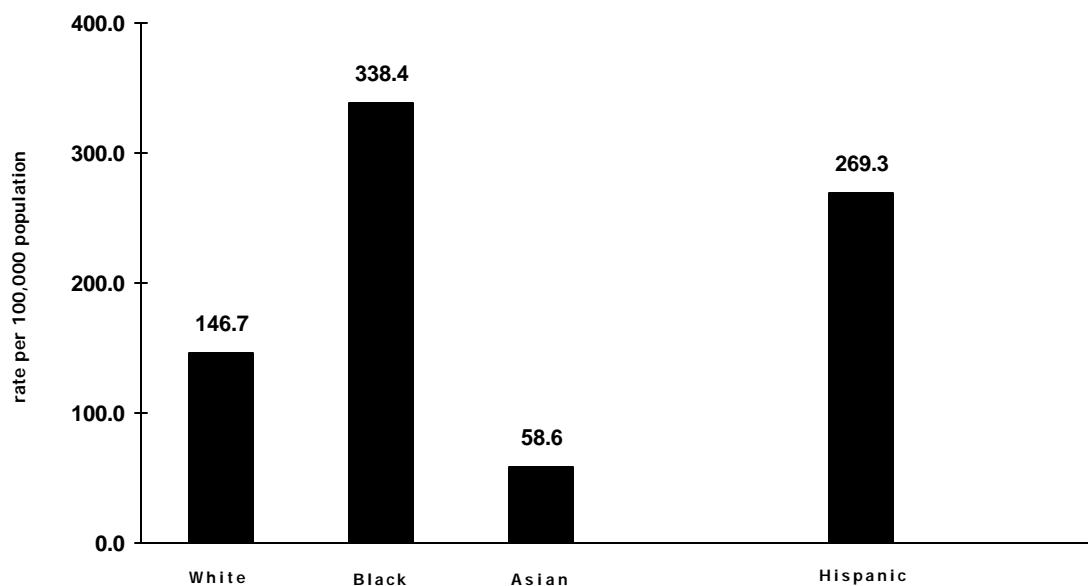
Age: 15-24
Age-Specific Death Rates by
Race/Ethnicity, Massachusetts: 1992-1994¹



¹ Data Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

² Persons of Hispanic ethnicity are also included in the race categories, consistent with the U.S. Census population classification

Age: 25-44
Age-Specific Death Rates by
Race/Ethnicity, Massachusetts: 1992-1994¹

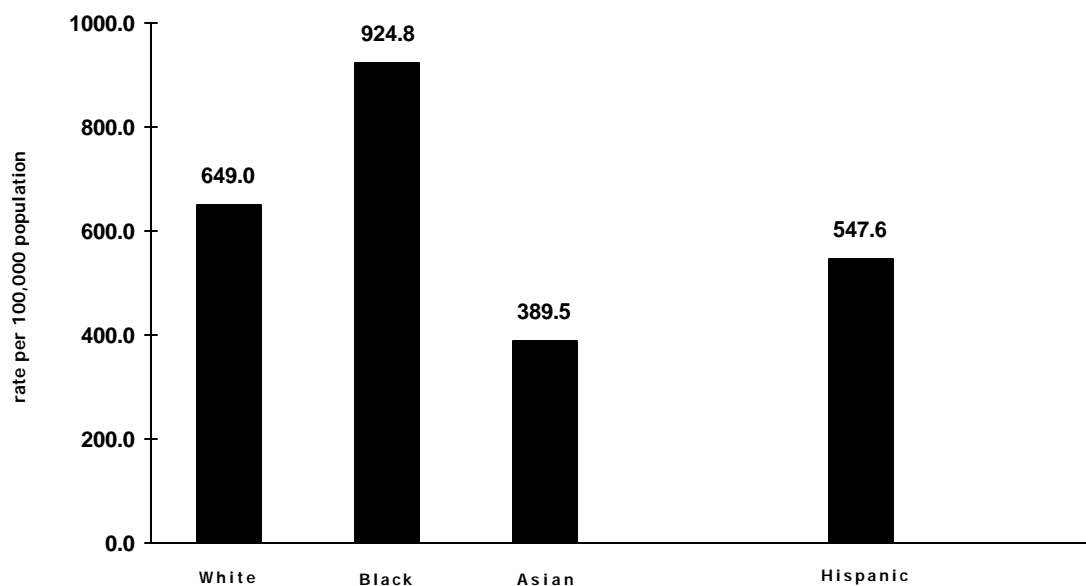


Race and Hispanic Ethnicity²

¹ Data Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

² Persons of Hispanic ethnicity are also included in the race categories, consistent with the U.S. Census population classification

Age: 45-64
Age-Specific Death Rates by
Race/Ethnicity, Massachusetts: 1992-1994¹

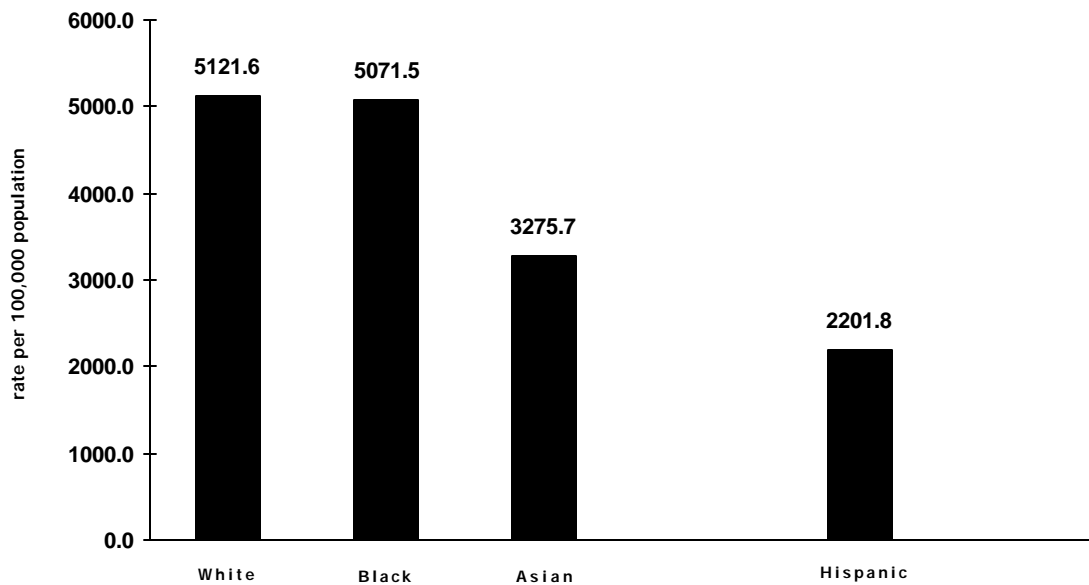


Race and Hispanic Ethnicity²

¹ Data Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

² Persons of Hispanic ethnicity are also included in the race categories, consistent with the U.S. Census population classification

Age: 65+
Age-Specific Death Rates by
Race/Ethnicity, Massachusetts: 1992-1994¹



¹ Data Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

² Persons of Hispanic ethnicity are also included in the race categories, consistent with the U.S. Census population classification

**Number of Deaths by Hispanic Ancestry for Selected Causes of Death:
Massachusetts: 1992-1994¹**

	Heart Disease²	AIDS/HIV³	Cancer⁴	Homicide⁵	ALL DEATHS
Puerto Rican	277	304	220	73	1,743
Dominican	22	8	26	26	168
Cuban	44	8	27	1	136
Other Hispanic	60	26	54	17	282
All Hispanics	403	346	327	117	2,389

¹ Data Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

² ICD-9 codes: 390-398, 402, 404-429

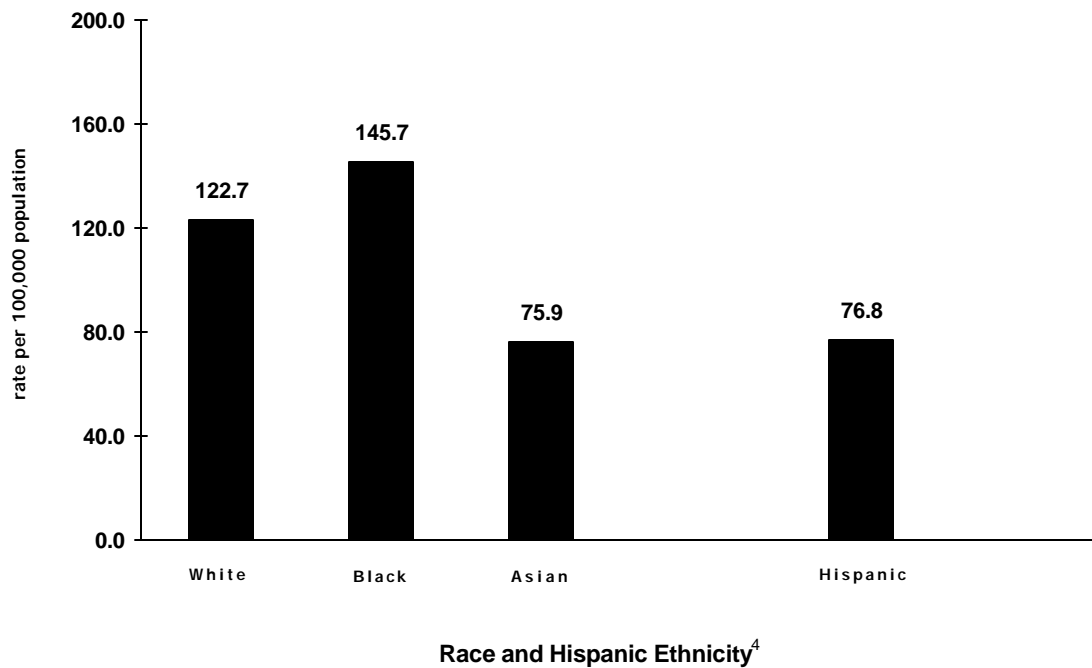
³ ICD-9 codes: 042-044

⁴ ICD-9 codes: 140-208

⁵ ICD-9 codes: 960-978, including legal intervention

Cause-Specific Mortality Indicators

**Heart Disease¹
Age-Adjusted Mortality Rates² by
Race/Ethnicity, Massachusetts: 1992-1994³**



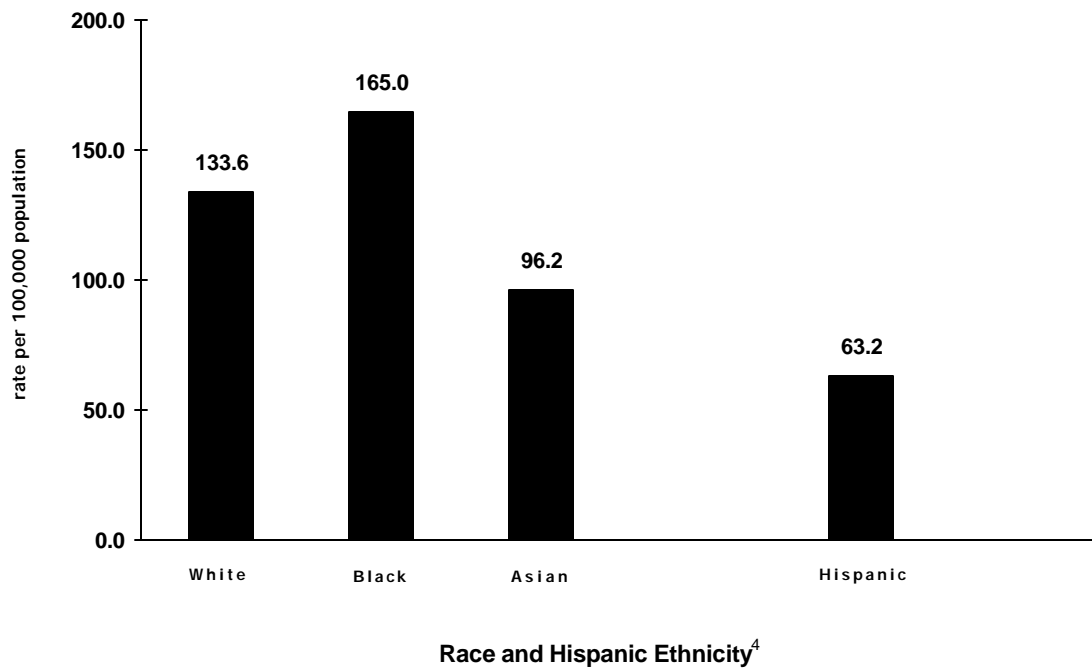
¹ ICD-9 codes: 390-398, 402, 404-429

² All rates are age-adjusted by the direct method using the 1940 U.S. Census population

³ Data Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

⁴ Persons of Hispanic ethnicity are also included in the race categories, consistent with the U.S. Census population classification

Cancer¹
Age-Adjusted Mortality Rates² by
Race/Ethnicity, Massachusetts: 1992-1994³



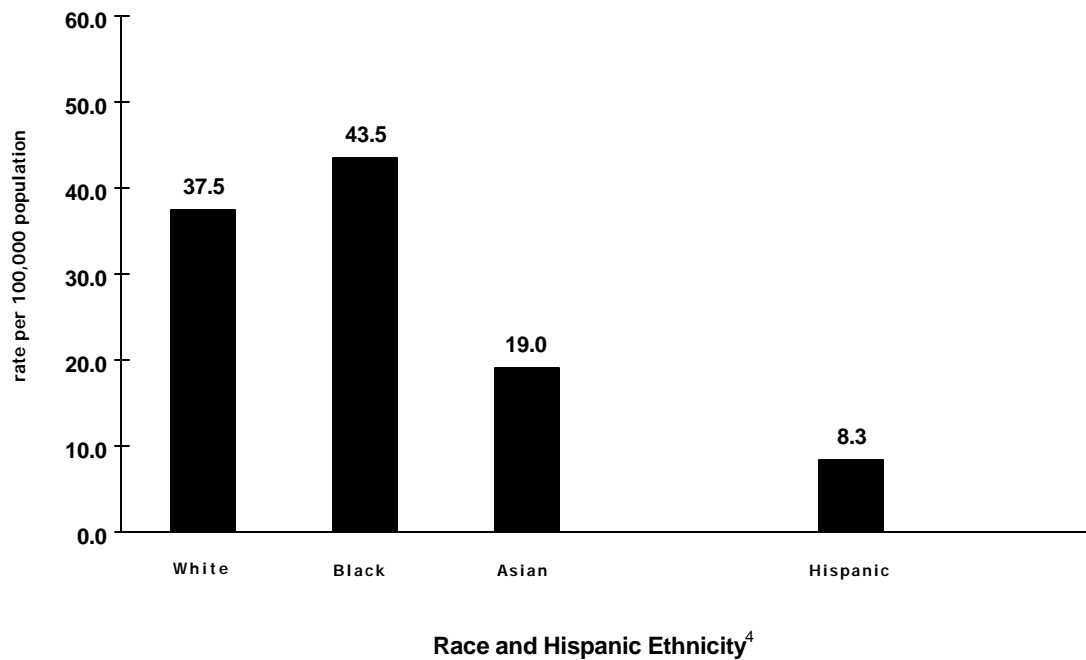
¹ ICD-9 codes: 140-208

² All rates are age-adjusted by the direct method using the 1940 U.S. Census population

³ Data Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

⁴ Persons of Hispanic ethnicity are also included in the race categories, consistent with the U.S. Census population classification

Lung Cancer¹
Age-Adjusted Mortality Rates² by
Race/Ethnicity, Massachusetts: 1992-1994³



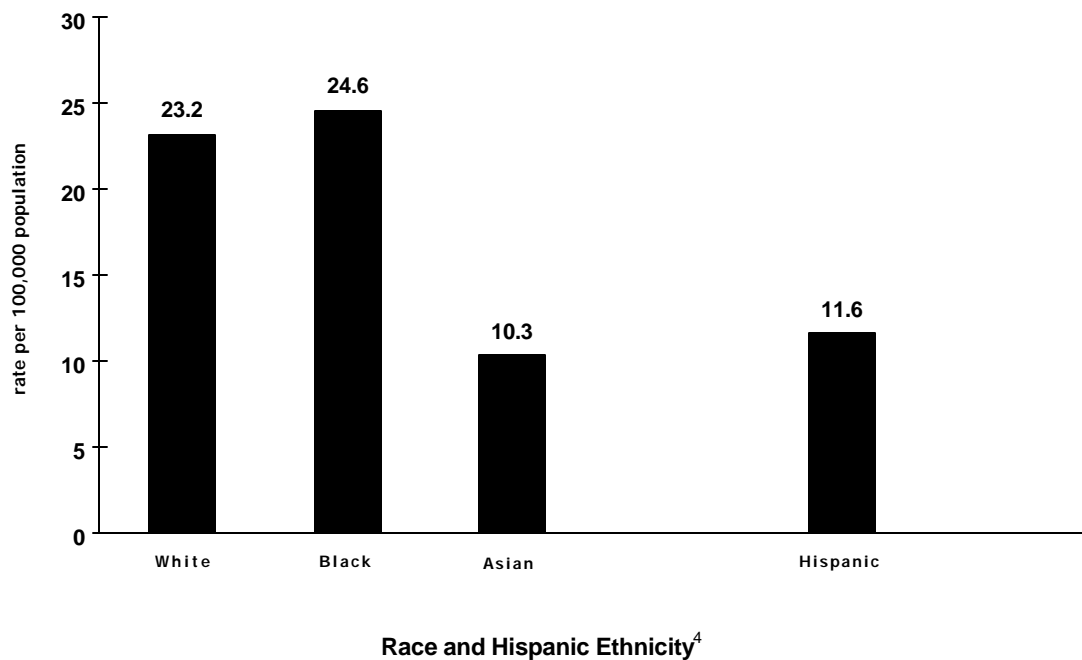
¹ ICD-9 code: 160-165

² All rates are age-adjusted by the direct method using the 1940 U.S. Census population

³ Data Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

⁴ Persons of Hispanic ethnicity are also included in the race categories, consistent with the U.S. Census population classification

**Female Breast Cancer¹
Age-Adjusted Mortality Rates² by
Race/Ethnicity, Massachusetts: 1992-1994³**



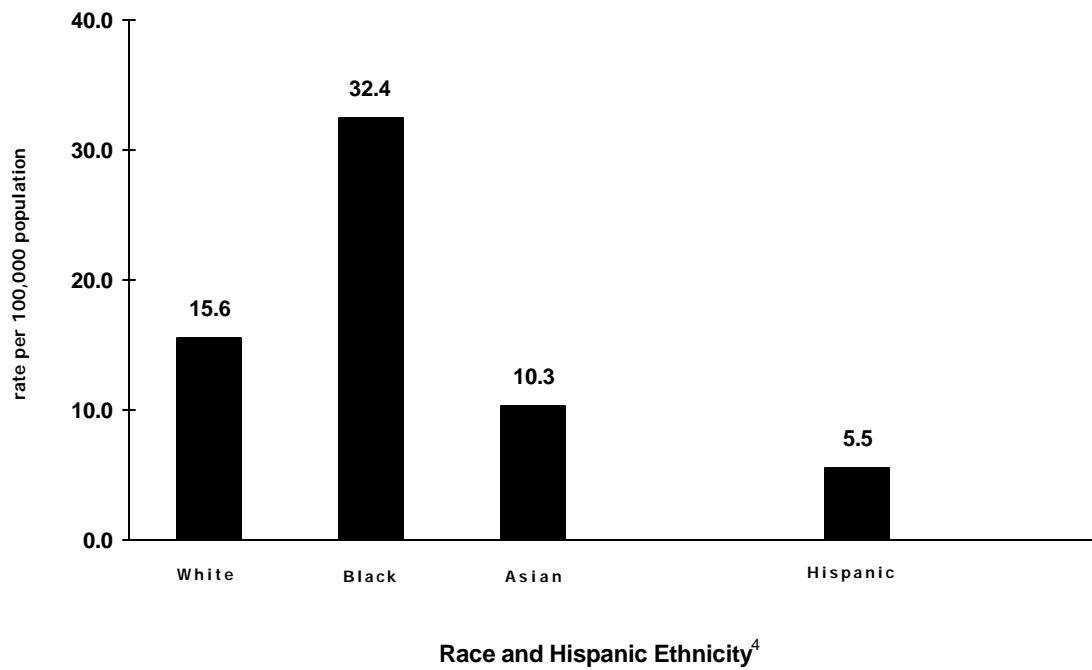
¹ ICD-9 code: 174

² All rates are age-adjusted by the direct method using the 1940 U.S. Census population

³ Data Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

⁴ Persons of Hispanic ethnicity are also included in the race categories, consistent with the U.S. Census population classification

**Prostate Cancer¹
Age-Adjusted Mortality Rates² by
Race/Ethnicity, Massachusetts: 1992-1994³**



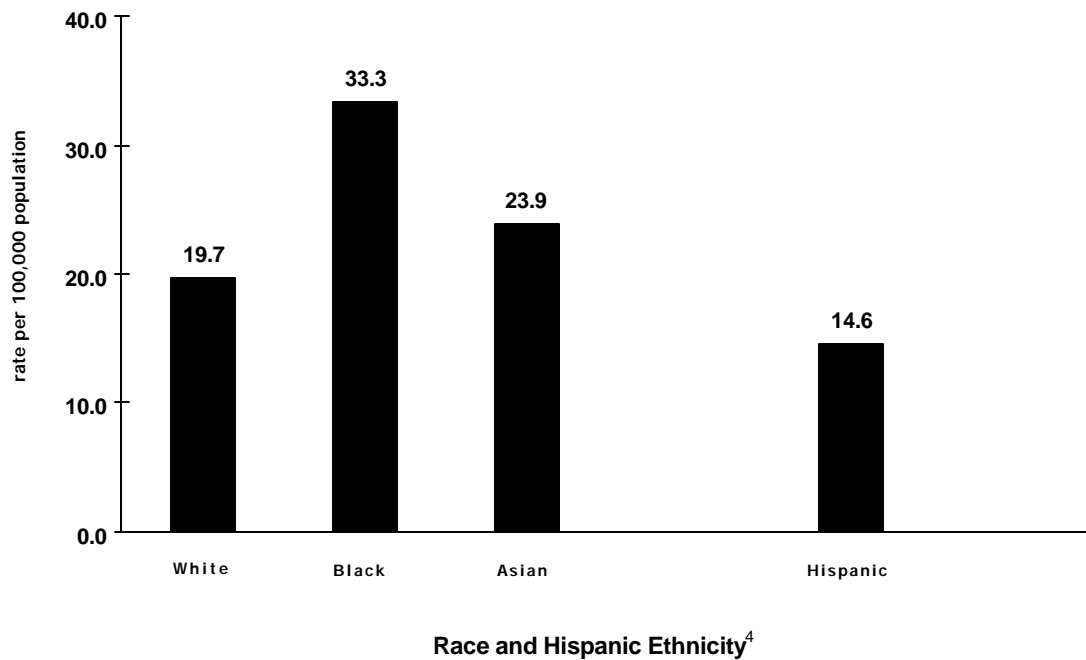
¹ ICD-9 code: 185

² All rates are age-adjusted by the direct method using the 1940 U.S. Census population

³ Data Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

⁴ Persons of Hispanic ethnicity are also included in the race categories, consistent with the U.S. Census population classification

Stroke¹
Age-Adjusted Mortality Rates² by
Race/Ethnicity, Massachusetts: 1992-1994³



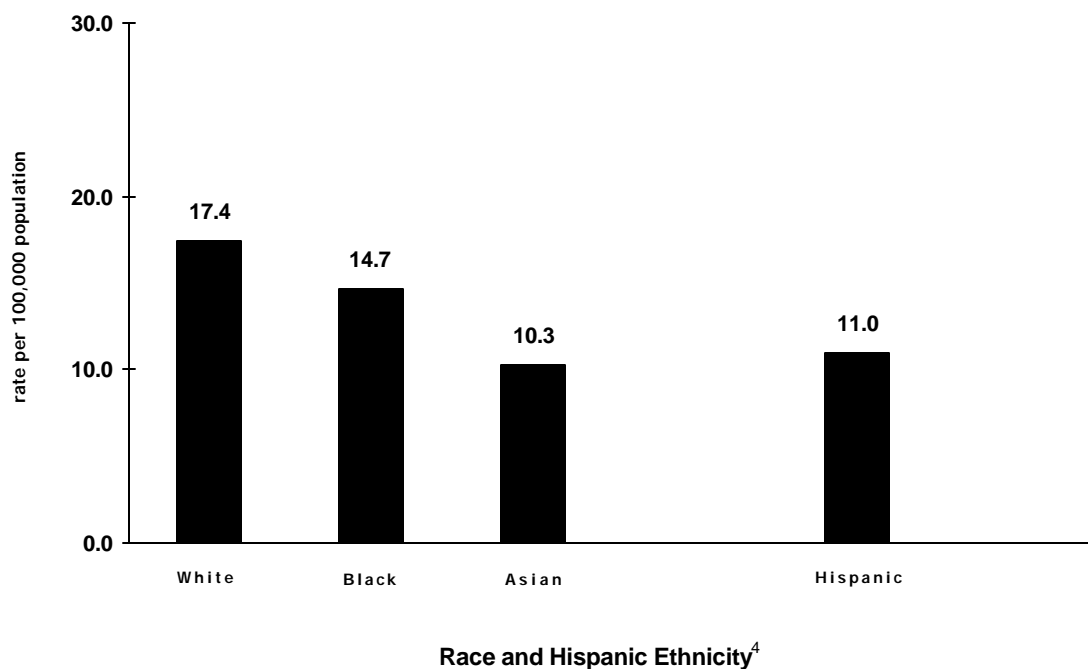
¹ ICD-9 codes: 430-438

² All rates are age-adjusted by the direct method using the 1940 U.S. Census population

³ Data Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

⁴ Persons of Hispanic ethnicity are also included in the race categories, consistent with the U.S. Census population classification

COPD¹
Age-Adjusted Mortality Rates² by
Race/Ethnicity, Massachusetts: 1992-1994³



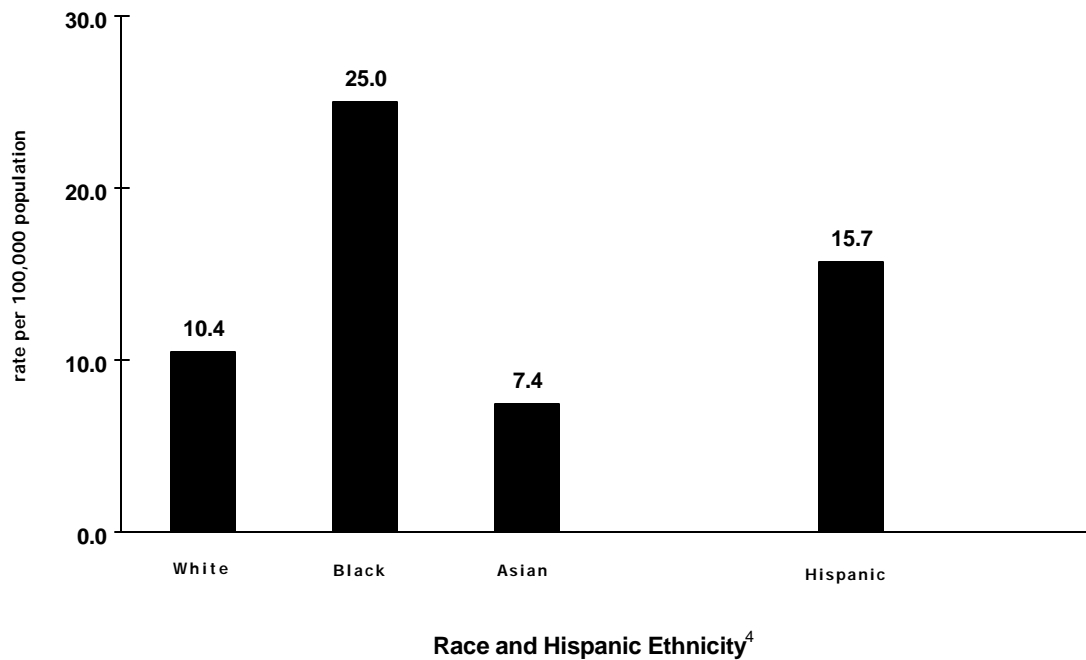
¹ Chronic obstructive pulmonary disease, ICD-9 codes: 490-496

² All rates are age-adjusted by the direct method using the 1940 U.S. Census population

³ Data Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

⁴ Persons of Hispanic ethnicity are also included in the race categories, consistent with the U.S. Census population classification

Diabetes¹
Age-Adjusted Mortality Rates² by
Race/Ethnicity, Massachusetts: 1992-1994³



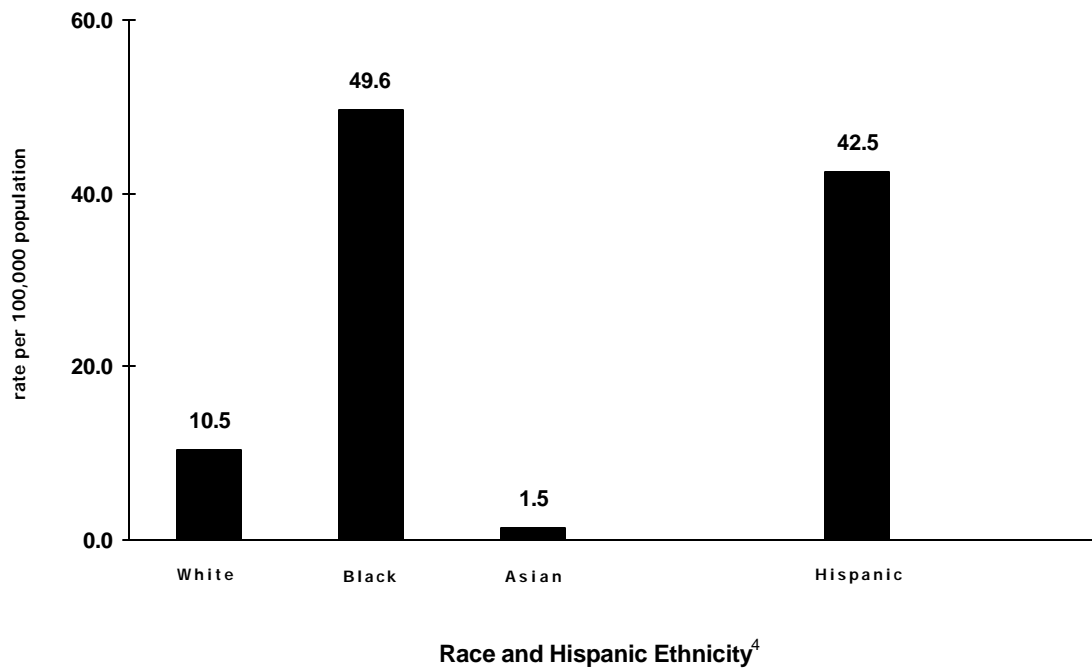
¹ ICD-9 code: 250

² All rates are age-adjusted by the direct method using the 1940 U.S. Census population

³ Data Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

⁴ Persons of Hispanic ethnicity are also included in the race categories, consistent with the U.S. Census population classification

**AIDS and HIV-Related ¹
Age-Adjusted Mortality Rates² by
Race/Ethnicity, Massachusetts: 1992-1994³**



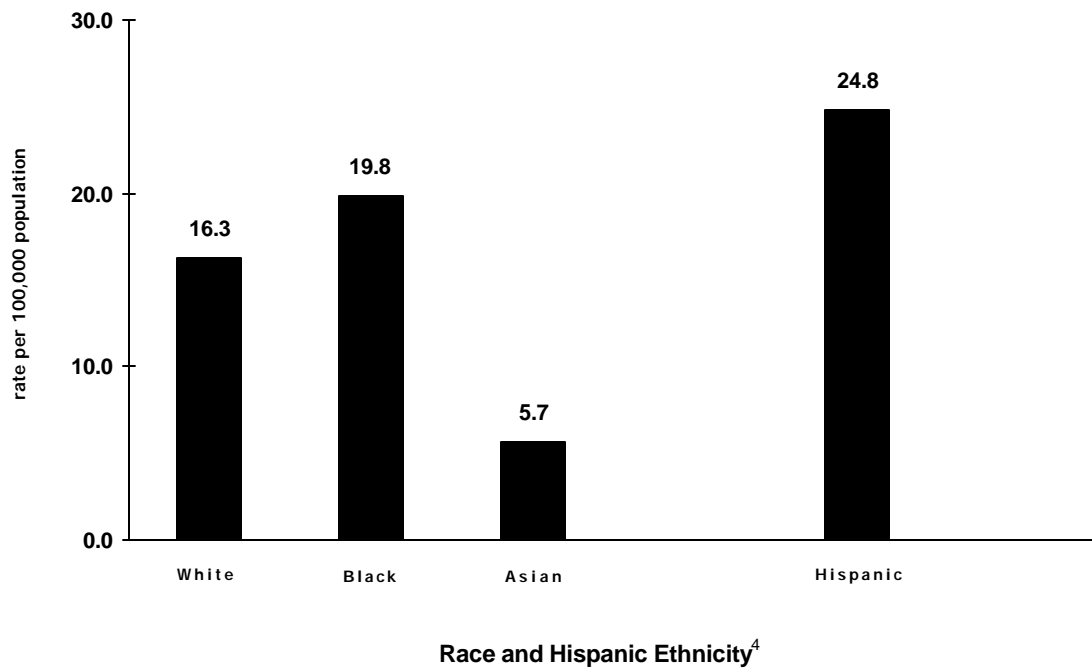
¹ ICD-9 codes: 042-044

² All rates are age-adjusted by the direct method using the 1940 U.S. Census population

³ Data Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

⁴ Persons of Hispanic ethnicity are also included in the race categories, consistent with the U.S. Census population classification

**Alcohol and Substance Abuse¹
Age-Adjusted Mortality Rates² by
Race/Ethnicity, Massachusetts: 1992-1994³**



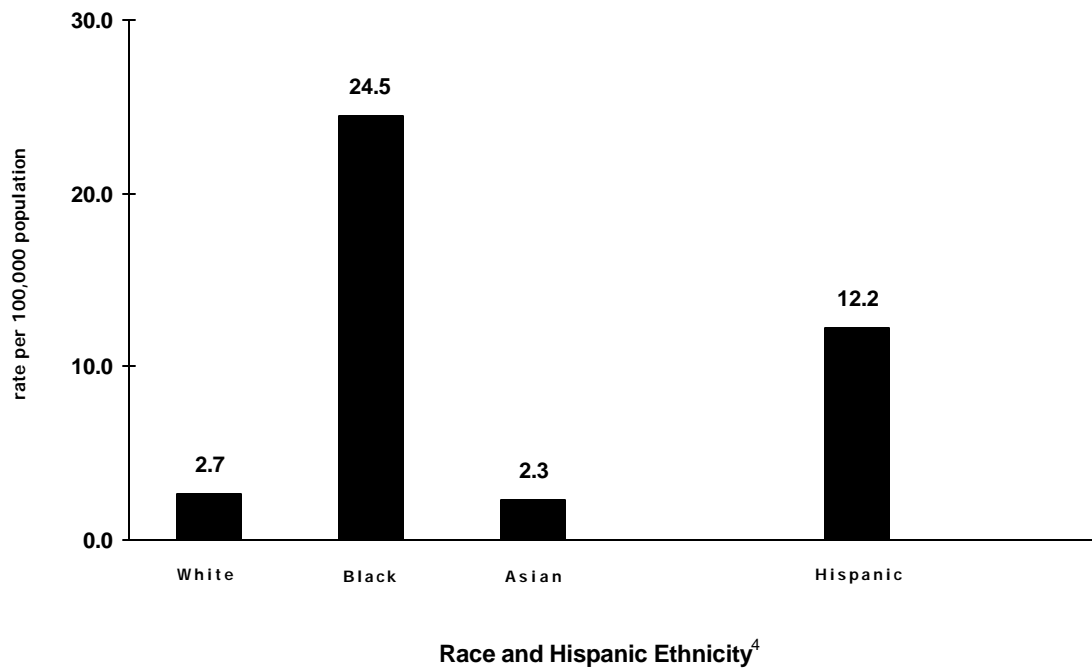
¹ ICD-9 codes: see the detail list in appendix

² All rates are age-adjusted by the direct method using the 1940 U.S. Census population

³ Data Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

⁴ Persons of Hispanic ethnicity are also included in the race categories, consistent with the U.S. Census population classification

Homicides¹
Age-Adjusted Mortality Rates² by
Race/Ethnicity, Massachusetts: 1992-1994³



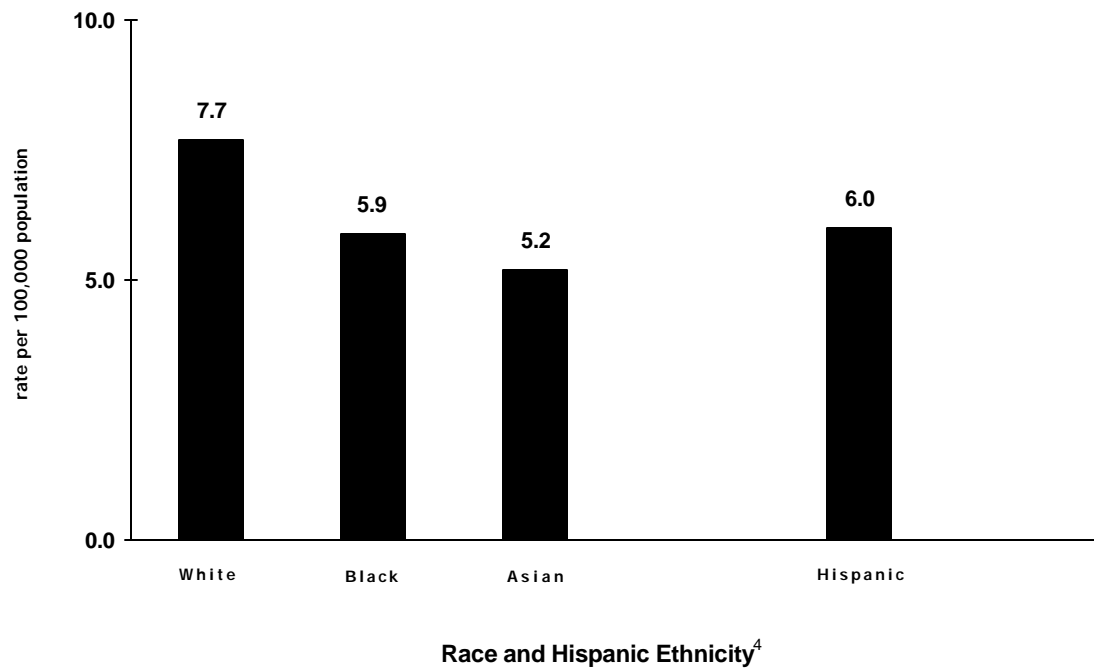
¹ ICD-9 codes: 960-978, including legal intervention

² All rates are age-adjusted by the direct method using the 1940 U.S. Census population

³ Data Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

⁴ Persons of Hispanic ethnicity are also included in the race categories, consistent with the U.S. Census population classification

**Suicides¹
Age-Adjusted Mortality Rates² by
Race/Ethnicity, Massachusetts: 1992-1994³**



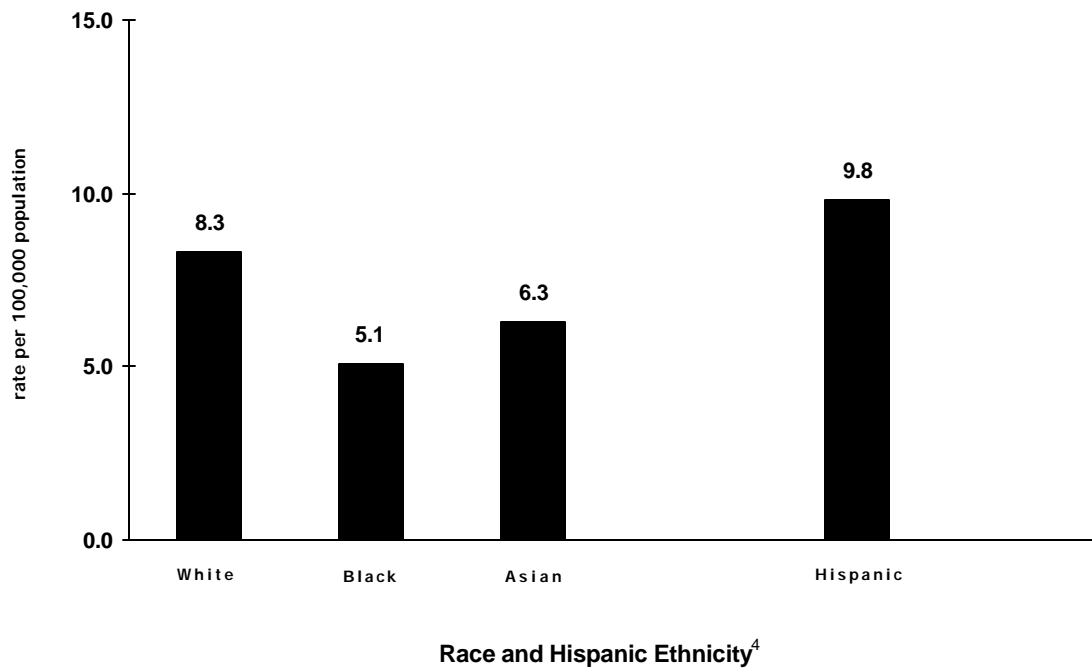
¹ ICD-9 codes: 950-959

² All rates are age-adjusted by the direct method using the 1940 U.S. Census population

³ Data Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

⁴ Persons of Hispanic ethnicity are also included in the race categories, consistent with the U.S. Census population classification

**Motor Vehicle Related¹
Age-Adjusted Mortality Rates² by
Race/Ethnicity, Massachusetts: 1992-1994³**



¹ ICD-9 codes: 810-825

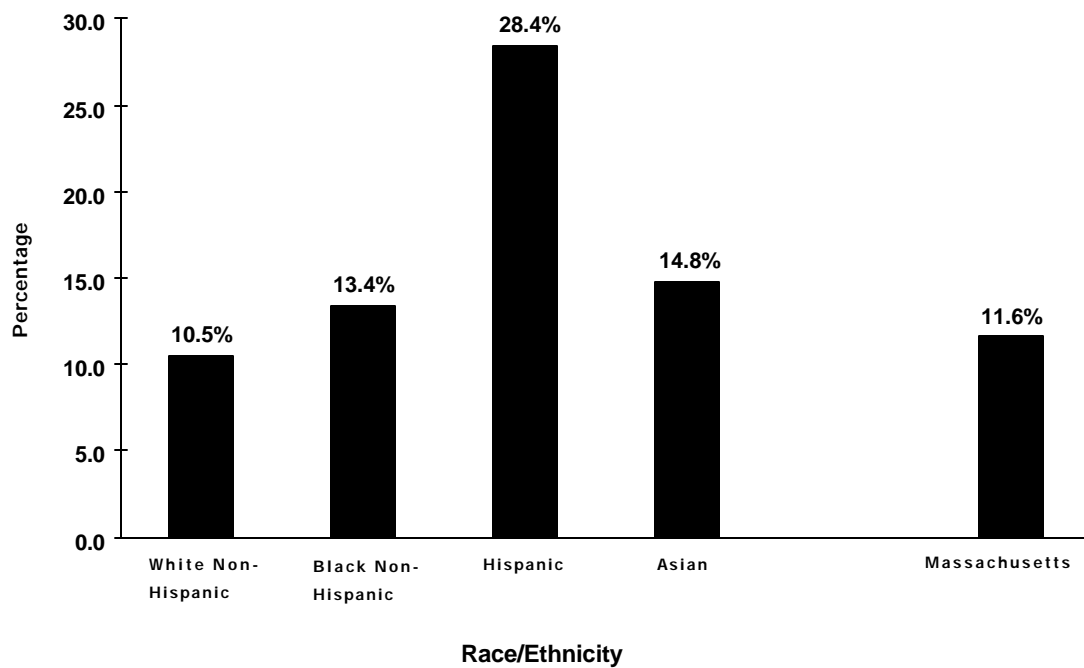
² All rates are age-adjusted by the direct method using the 1940 U.S. Census population

³ Data Source: Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

⁴ Persons of Hispanic ethnicity are also included in the race categories, consistent with the U.S. Census population classification

Health Status and Risk Behavior Indicators

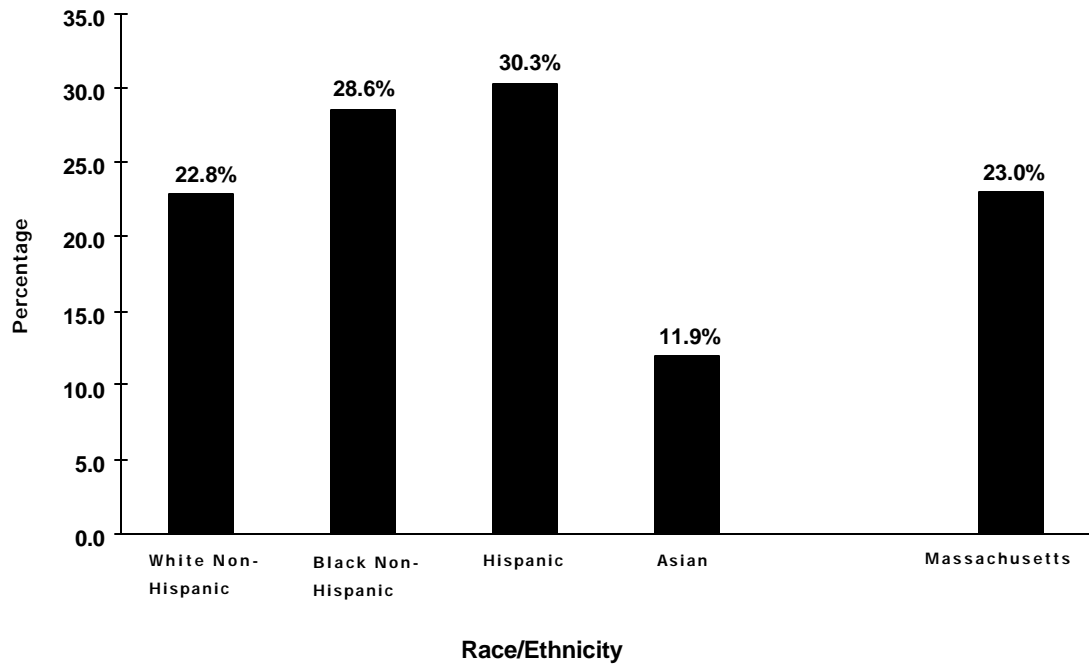
**Percentage of persons reporting Fair/Poor Health Status¹ by
Race/Ethnicity, Massachusetts: 1994-1995²**



¹ Reported having "poor/fair" health status

² Data Source: Behavioral Risk Factor Surveillance System, Chronic Disease Surveillance Program
Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

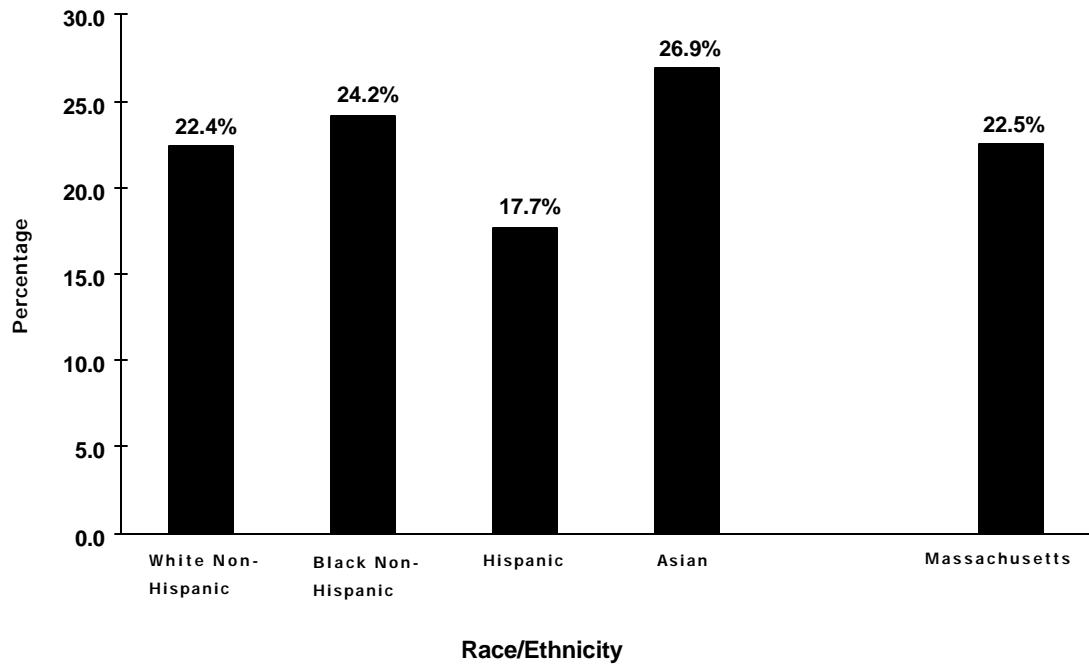
**Percentage of persons reporting Overweight¹ by
Race/Ethnicity, Massachusetts: 1994-1995²**



¹ Body Mass Index (computed from self-reported height and weight) of at least 27.8 kg/m² (men) or 27.3 kg/m² (women)

² Data Source: Behavioral Risk Factor Surveillance System, Chronic Disease Surveillance Program
Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

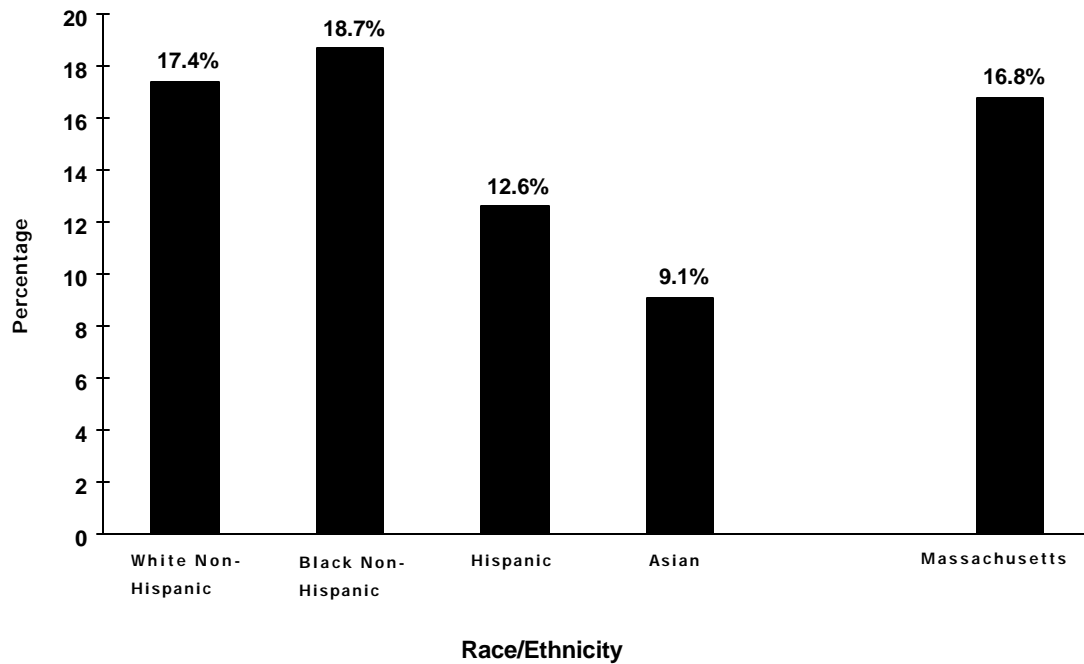
**Percentage of persons Currently Smoking¹ by
Race/Ethnicity, Massachusetts: 1994-1995²**



¹ Reported having smoked at least 100 cigarettes in lifetime and is currently smoking now

² Data Source: Behavioral Risk Factor Surveillance System, Chronic Disease Surveillance Program
Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

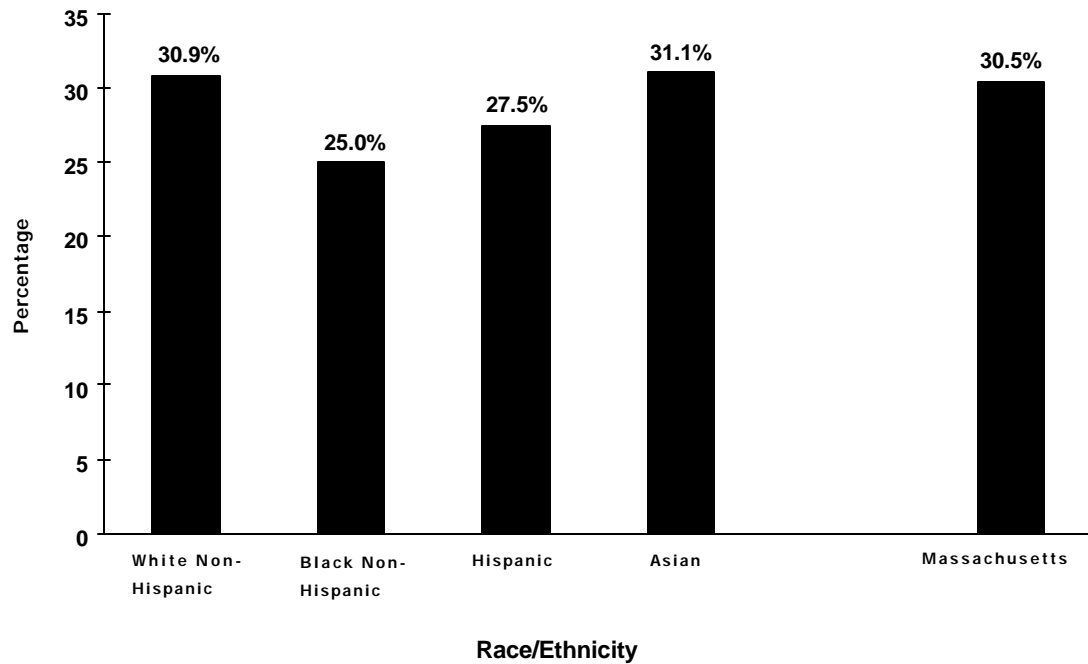
**Percentage of persons reporting High Blood Pressure¹ by
Race/Ethnicity, Massachusetts: 1995²**



¹ Reported having been told by a doctor or other health professional that blood pressure was high

² Data Source: Behavioral Risk Factor Surveillance System, Chronic Disease Surveillance System
Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

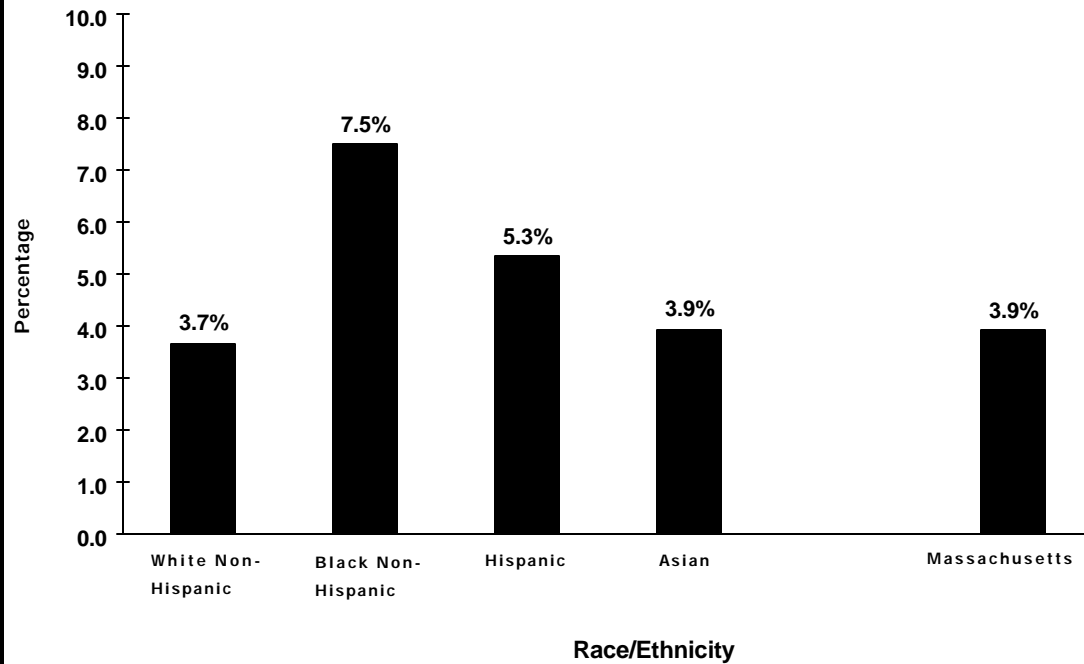
**Percentage of persons reporting High Cholesterol¹ by
Race/Ethnicity, Massachusetts: 1995²**



¹ Reported having been told by a doctor or other health professional that blood cholesterol was high

² Data Source: Behavioral Risk Factor Surveillance System, Chronic Disease Surveillance Program
Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

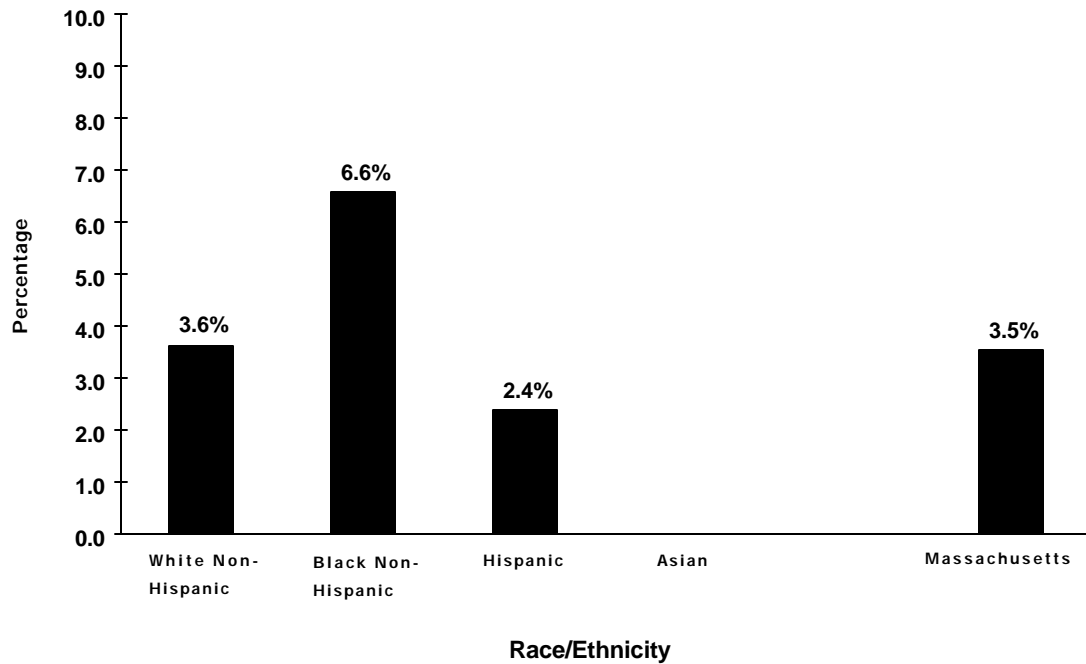
**Percentage of persons reporting Diabetes¹ by
Race/Ethnicity, Massachusetts: 1994-1995²**



¹ Have been told by a doctor have diabetes

² Behavioral Risk Factor Surveillance System, Chronic Disease Surveillance Program
Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

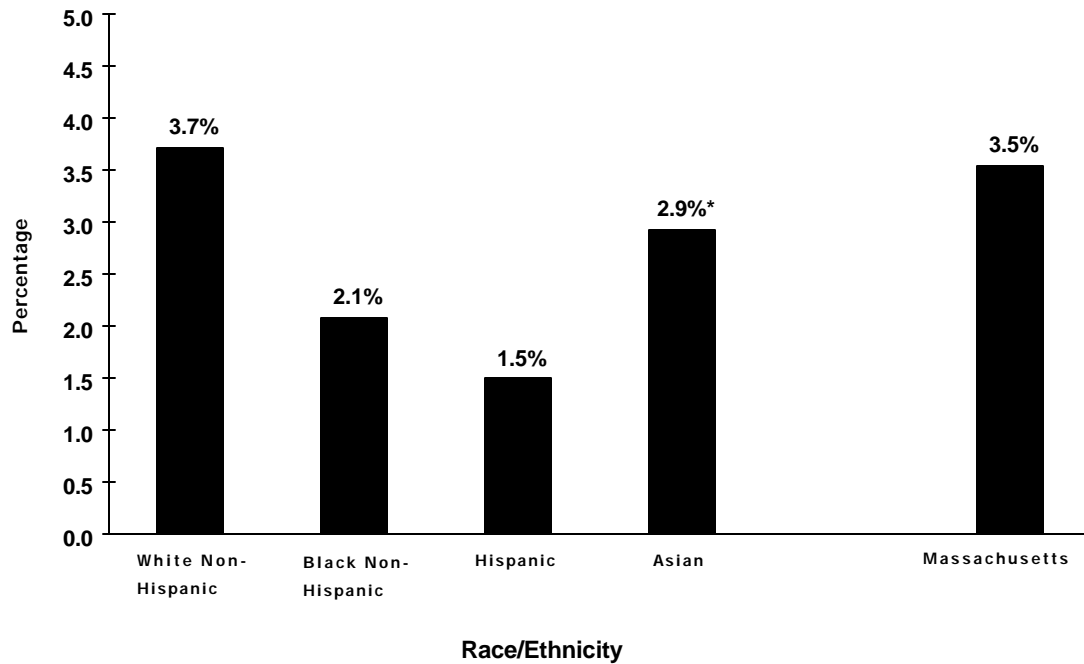
**Percentage of persons reporting Chronic Drinking¹ by
Race/Ethnicity, Massachusetts: 1995²**



¹ Had 60 or more alcoholic drinks within the past month

² Data Source: Behavioral Risk Factor Surveillance System, Chronic Disease Surveillance System
Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

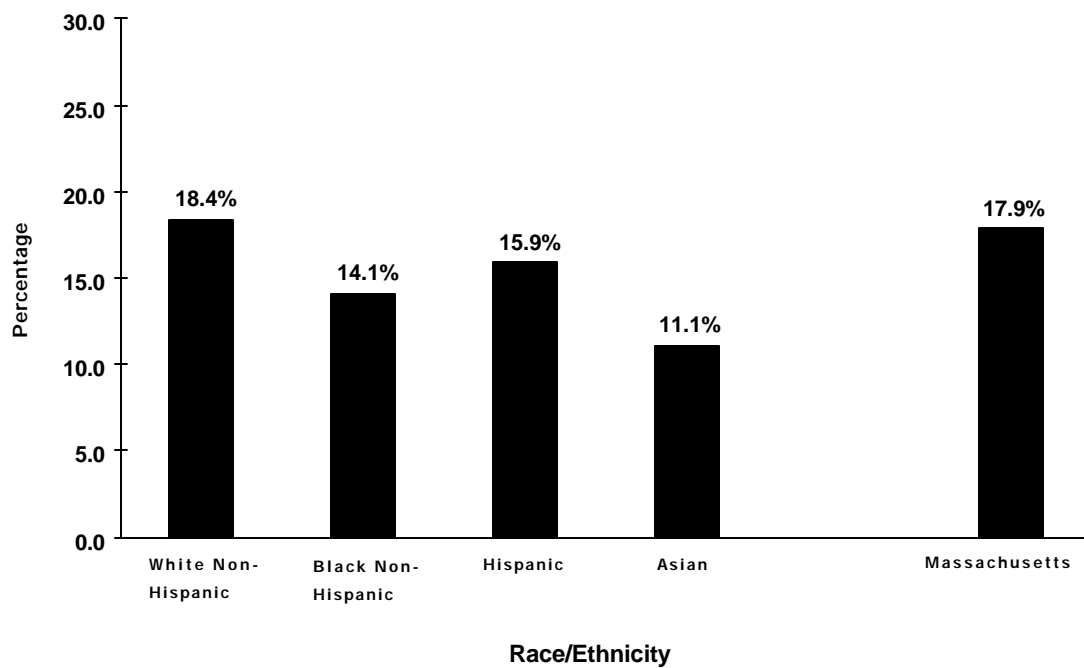
**Percentage of persons reporting Driving after Drinking¹ by
Race/Ethnicity, Massachusetts: 1995²**



¹ Drove at least once after having had "perhaps too much to drink" in the past month

² Data Source: Behavioral Risk Factor Surveillance System, Chronic Disease Surveillance Program
Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

**Percentage of persons reporting Binge Drinking¹ by
Race/Ethnicity, Massachusetts: 1995²**



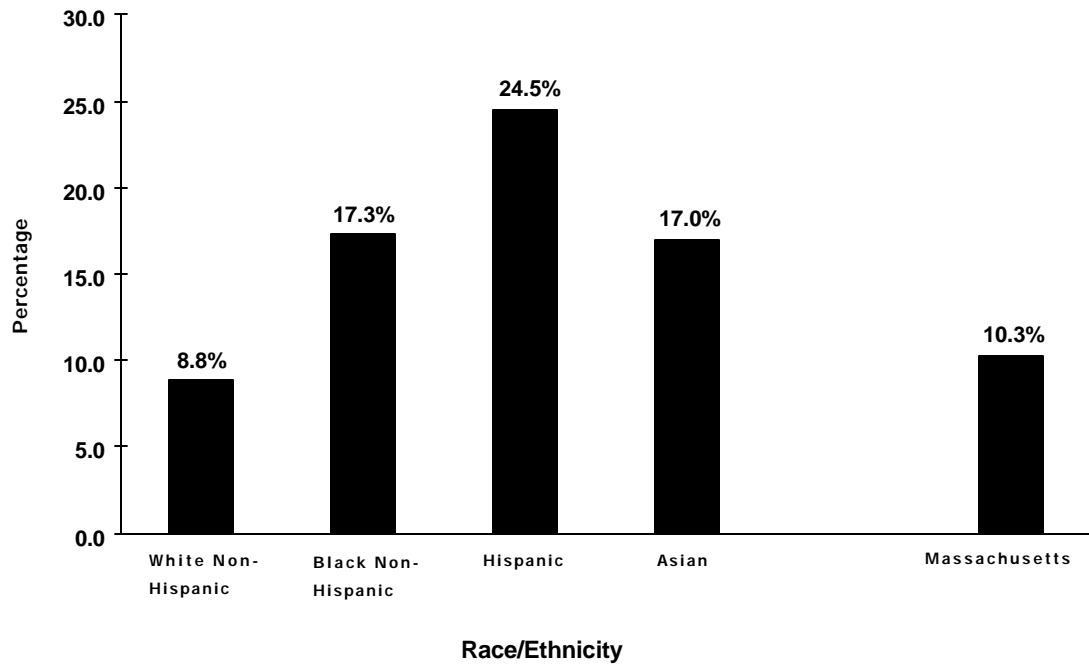
¹ Having had 5 or more drinks on a single occasion at least once in past month

² Behavioral Risk Factor Surveillance System, Chronic Disease Surveillance System

Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

Health Care Access Indicators

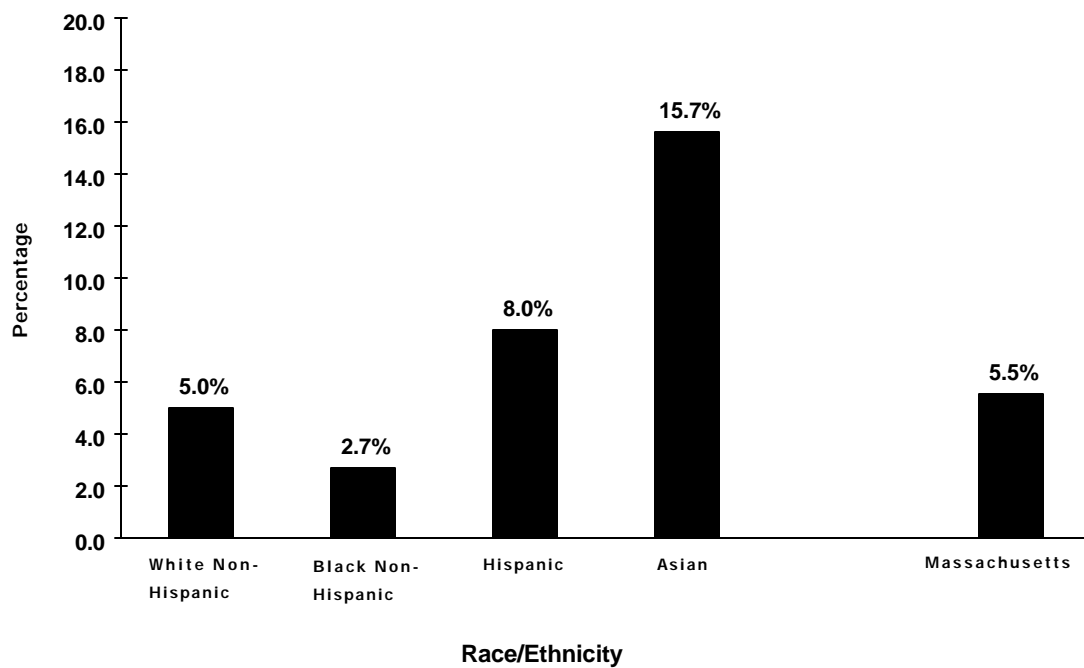
**Percentage of persons reporting No Health Insurance¹ by
Race/Ethnicity, Massachusetts: 1994-1995²**



¹ Reported not having any kind of health insurance (including government plans)

² Data Source: Behavioral Risk Factor Surveillance System, Chronic Disease Surveillance System
Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

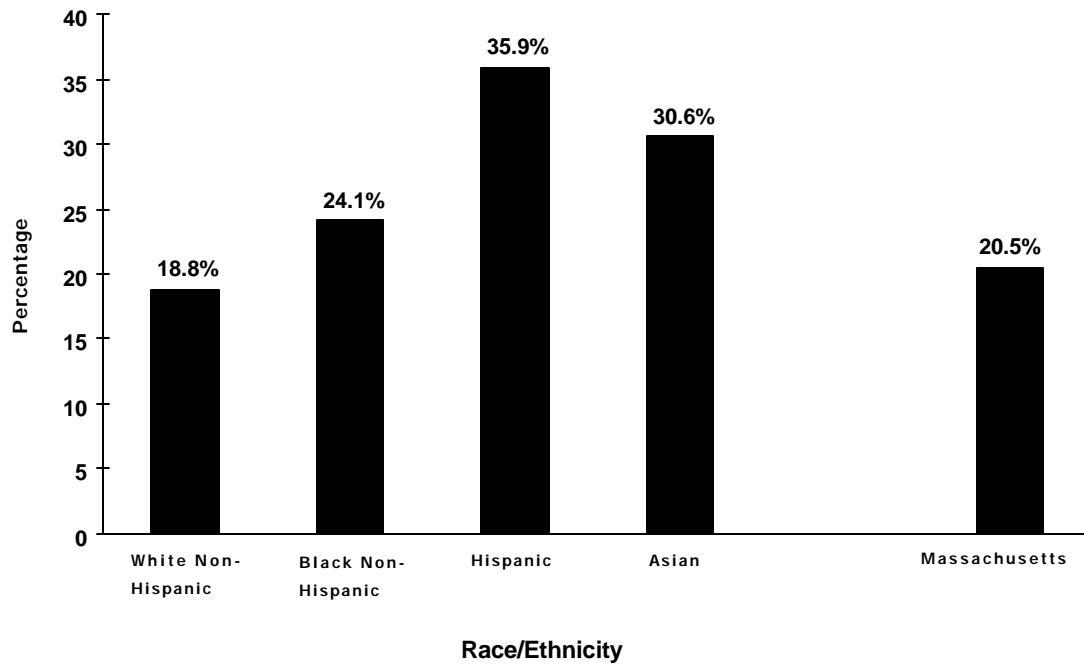
**Percentage of persons reporting Unchecked Blood Pressure¹ by
Race/Ethnicity, Massachusetts: 1995²**



¹ Reported not having had blood pressure checked by a doctor, nurse, or other health professional within the past 2 years

² Data Source: Behavioral Risk Factor Surveillance System, Chronic Disease Surveillance Program
Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

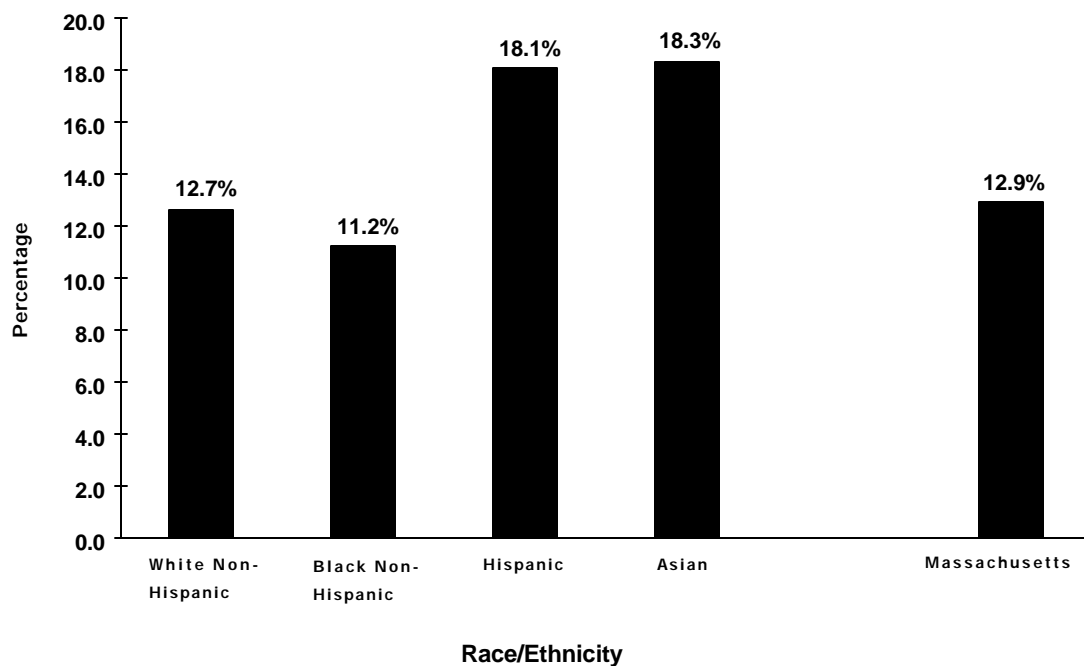
**Percentage of persons reporting Unchecked Cholesterol¹ by
Race/Ethnicity, Massachusetts: 1995²**



¹ Reported not having blood cholesterol checked within the past 5 years

² Data Source: Behavioral Risk Factor Surveillance System, Chronic Disease Surveillance Program
Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

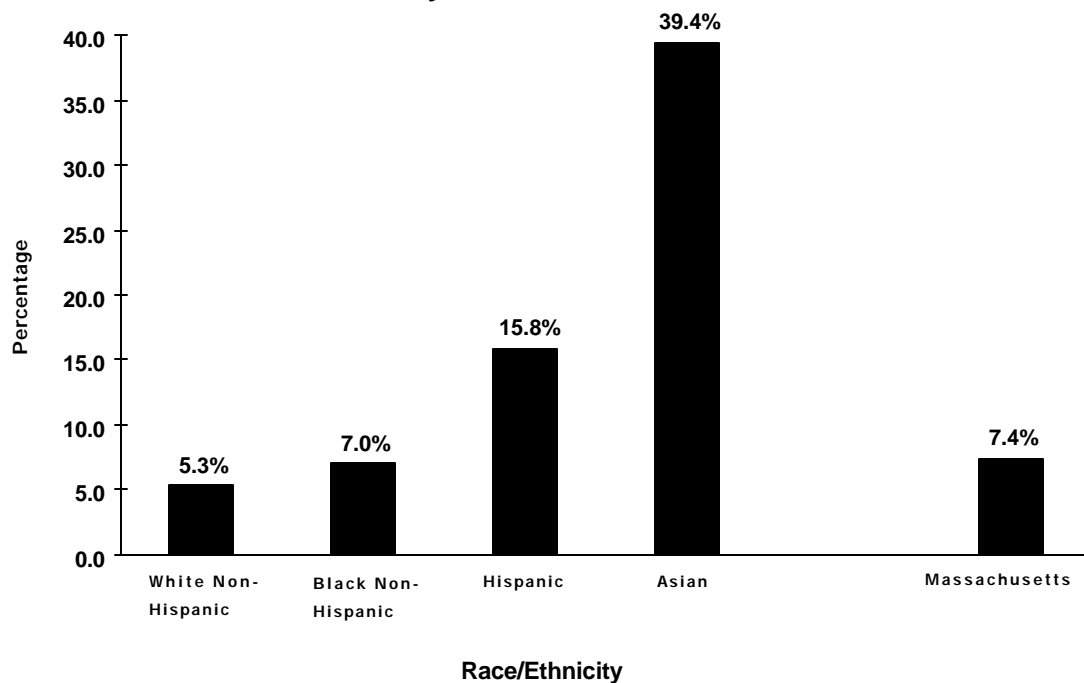
**Percentage of Women 40+ reporting Never having a Mammogram¹ by
Race/Ethnicity, Massachusetts: 1994-1995²**



¹ Reported never having a mammogram among women 40 years and older

² Data Source: Behavioral Risk Factor Surveillance System, Chronic Disease Surveillance Program
Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

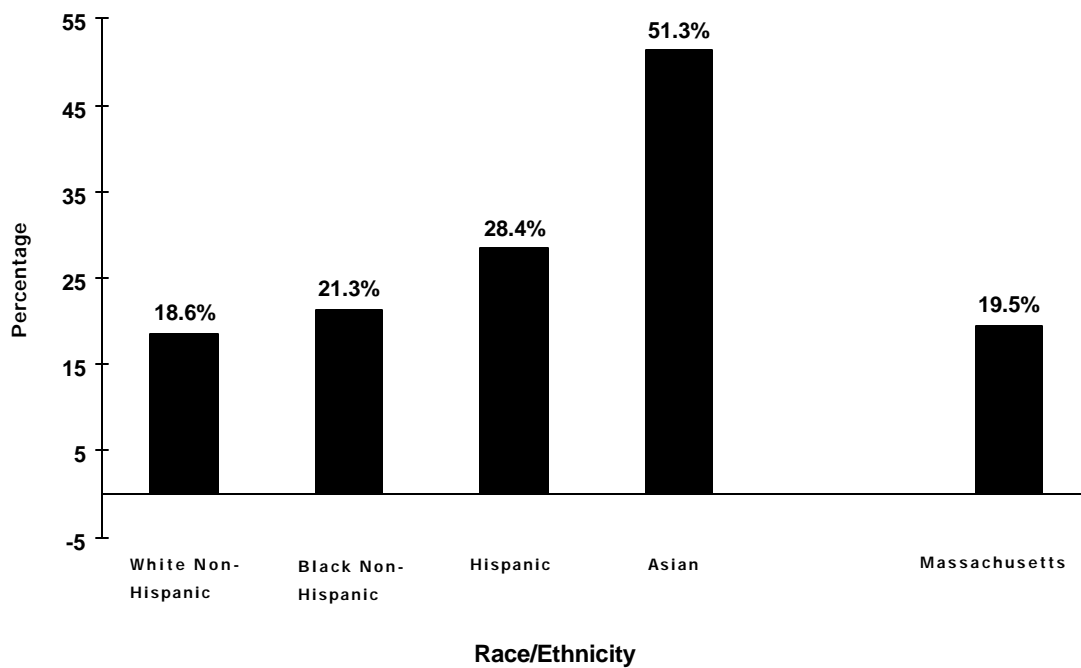
**Percentage of Women 18+ reporting Never having a Pap Test¹ by
Race/Ethnicity, Massachusetts: 1994-1995²**



¹ Reported never having had a Pap test and had an intact uterine cervix

² Data Source: Behavioral Risk Factor Surveillance System, Chronic Disease Surveillance System
Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

**Percentage of persons 40+reporting Never having had a Digital Rectal Examination¹
by Race/Ethnicity, Massachusetts: 1995²**



¹ Having had no digital rectal examination among respondents 40 years and older

² Data Source: Behavioral Risk Factor Surveillance System, Chronic Disease Surveillance Program
Bureau of Health Statistics, Research and Evaluation, Massachusetts Department of Public Health

Technical Notes

Age-Adjusted Rate

A procedure for adjusting rates, designed to minimize the distortions created by differences in age distribution when comparing rates for populations with different age compositions. This calculation is useful when comparing death rates from different populations or in the same population over time. For example, if one wished to compare the 1994 death rates between Hispanics and Whites, the age-adjusted formula would account for the fact that only 4% of Hispanic residents in Massachusetts were 65 years of age or older, whereas 14.5% of White Massachusetts residents were in this age group.

Age-adjusted rates are calculated by weighting the age-specific rates for a given year by the age distribution of a standard population. The weighted age-specific rates are then added to produce the adjusted rate for all ages combined. The 1940 U.S. population is used as the standard in this document for consistency with data published by NCHS.

Age-Specific Rate

Rates are for a specified age group. Age-specific rates are calculated by dividing the actual number of deaths in a given year by the estimated population in that age group for that year. The numerator and denominator refer to the same age group.

$$\begin{array}{lcl} & \text{Number of deaths among residents} & \\ & \text{ages 25-34 in a given year} & \\ \text{Age-specific death} & = & \text{-----} \quad \times \quad 100,000 \\ \text{rate (ages 25-34)} & & \text{Average (or midyear) population} \\ & & \text{ages 25-34 in that year} \end{array}$$